

4
No. 39.

TRANSCRIPT OF RECORD.

UNITED STATES CIRCUIT COURT OF APPEALS,
FOR THE NINTH CIRCUIT.

OCTOBER TERM, 1891.

HUNT BROTHERS' FRUIT PACKING COMPANY,
Plaintiff in Error,

vs.

JOHN W. CASSIDY,
Defendant in Error.

UPON WRIT OF ERROR TO THE CIRCUIT COURT OF THE UNITED STATES FOR
THE NORTHERN DISTRICT OF CALIFORNIA

(FILED MARCH 16th, 1892.)

Filed, March *1892.*

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Declaration.

In the Circuit Court of the United States for the Northern District of California, of the February Term of the Year One Thousand Eight Hundred and Ninety-one.

UNITED STATES OF AMERICA,
NORTHERN DISTRICT OF CALIFORNIA. } ss.

John W. Cassidy of the City of Petaluma, County of Sonoma, in the State of California, and a citizen of the said State of California, plaintiff in this action by Langhorne & Miller, his attorneys, complains of the Hunt Brothers' Fruit Packing Company, a corporation organized and existing under and by virtue of the laws of the State of California, and having its principal place of business at the City of Santa Rosa, County of Sonoma, in the said State of California, and the Northern District thereof, of a plea of trespass on the case.

For that heretofore to-wit: On and prior to the 8th day of March, A. D. 1875, plaintiff was the original and first inventor of a certain new and useful invention, to-wit: an improvement in Drying Apparatus.

That said invention related to an improved device for dessicating fruit and other substances by means of artificial heat, and consisted among other things, of a novel means of moving the trays on which the fruit is held within the drying chamber from the time it is admitted until it is removed therefrom, as will more fully appear from the letters patent therefor hereinafter set out to which reference is hereby made for a fuller description.

2 And for that the said invention was new and useful, and was not known or used by others prior to the invention thereof by the said plaintiff, and at the time of his application for letters patent therefor, as hereinafter mentioned, had not been in public use or on sale in the United States for two years, nor abandoned, nor proved to have been abandoned.

And for that the said plaintiff, being as aforesaid the inventor thereof, did on the 8th day of March, A. D. 1875, make application to the Government of the United States for the issuance to him of letters patent for said invention, and thereafter, to-wit: on the 25th day of January, A. D. 1876, after proceedings duly and regularly had and taken in the matter of said application, letters patent of the United States were granted, issued and delivered to said plaintiff for said invention, granting and securing to him, his heirs and assigns for the full term of seventeen years from said last-named day the sole and exclusive right, to make, use and vend said invention throughout the United States and territories thereof.

And for said letters patent were issued in due form of law under the Seal of the Patent Office of the United States, and were signed by the Secretary of the Interior, and were countersigned by the Com-

missioner of Patents of the United States, and bear date the day and year last aforesaid, and were numbered No. 172,608, all of which will more fully appear by said letters patent, which are ready in Court to be produced by plaintiff, or a duly certified copy thereof, and of which he hereby makes profert.

And for that prior to the issuance of said letters patent all proceedings were had and taken which were required by law to be had and taken previous to the issuance of letters patent for new and useful inventions.

And for that ever since the issuance of said letters patent plaintiff has been and now is the sole and exclusive owner and holder of said letters patent, and the invention therein claimed, for, to, in and throughout the United States of America and Territories thereof.

And for that since the issuance of said letters patent in the exercise of the rights and liberties thereby granted, the plaintiff has made, used and sold the improvements so patented, and had and maintained, until the infringement hereinafter complained of, possession of said invention under and by virtue of said letters patent, and has never acquiesced in any invasion or infringement of his said rights.

Yet notwithstanding the premises the defendant having full knowledge thereof, and in violation of the exclusive rights and privileges secured by said letters patent, and utterly disregarding the same and contriving and intending to injure and damage the plaintiff, since the issuance of said letters patent and prior to the commencement of this action, without the license or consent of plaintiff, but contrary thereto in the State of California and the Northern District thereof, has wrongfully and unlawfully made, used and sold large numbers of machines containing and embracing the inventions described and claimed in and by the said letters patent.

That said machines so made, used and sold by defendant are infringements upon said letters patent No. 172,608 and were made according to the specification thereof; all contrary to law and the form, force and effect of the Statutes of the United States in that behalf made and provided.

4. Whereby and by reason of the premises and the infringement aforesaid the plaintiff has been greatly injured and damaged and deprived of large royalties, gains and profits which he would have derived from practicing said invention, and has sustained actual damages thereby in a large sum, to-wit: five thousand dollars (\$5,000).

Wherefore, by force of the Statutes of the United States a right of action has accrued to plaintiff to recover the said actual damages and such additional amount not exceeding in the aggregate three times the amount of such actual damages as the Court may see fit

to adjudge and order, beside costs of suit.

Yet the defendant, though often requested, has never paid the same nor any part thereof, but has refused and still does refuse so to do, and therefore plaintiff brings this suit.

LANGHORNE & MILLER,

Attorneys for Plaintiff.

(Endorsed :) Filed July 9, 1891. L. S. B. Sawyer, Clerk.

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Summons.

United States of America.

Circuit Court of the United States, Ninth Circuit, Northern
District of California.

J. W. CASSIDY,

Plaintiff,

vs.

HUNT BROTHERS' FRUIT PACK-
ING COMPANY (corporation),

Defendant.)

Action brought in the said Cir-
cuit Court, and the declaration
filed in the office of the Clerk of
said Circuit Court, in the City
and County of San Francisco.

The President of the United States of America, Greeting: To Hunt
Brothers' Fruit Packing Company (a corporation), defendant:

You are hereby required to appear in an action brought against
you by the above named plaintiff, in the Circuit Court of the
United States, Ninth Circuit, in and for the Northern District of
California, and to file your plea, answer or demurrer to the declara-
tion filed therein (a certified copy of which accompanies this sum-
mons), in the office of the Clerk of said Court, in the City and
County of San Francisco, within ten days after the service on you
of this summons—if served in this county; or, if served out of this
county, then within thirty days—or judgment by default will be
taken against you.

The said action is brought to recover the sum of \$5,000 damages
from you by reason of the alleged infringement by you upon letters
patent of the United States issued to plaintiff on January 25, 1876,
and numbered 172,608, for a Fruit-drier, together also with costs
and treble damages, all of which will more fully appear from the
declaration on file, to which reference is hereby made, and

6 if you fail to appear and plead, answer or demur, as herein
required, your default will be entered and the plaintiff will
apply to the Court for the relief demanded.

Witness, the Honorable Melville W. Fuller, Chief Justice of the
Supreme Court of the United States, this 9th day of July, in the
year of our Lord one thousand, eight hundred and ninety-one,
and of our independence the 116th.

[SEAL.]

L. S. B. SAWYER,

Clerk.

(Endorsed :)

 UNITED STATES MARSHAL'S OFFICE, }
 NORTHERN DISTRICT OF CALIFORNIA. }

I hereby certify that I received the within writ on the 9th, day of July, 1891, and personally served the same on the 10th, day of July, 1891, on Hunt Brothers Fruit Packing Company, by delivering to and leaving with J. H. Hunt, President of said Hunt Brothers Fruit Packing Company, said defendant named therein personally, at the County of Sonoma, in said district, a certified copy thereof, together with a certified copy of the bill of complaint, certified to by J. H. Miller, pl'ff's att'y, attached thereto.

W. G. LONG,

U. S. Marshal.

By A. A. WOOD,

Deputy.

San Francisco, July 11th, 1891.

Filed July 11, 1891.

L. S. B. SAWYER,

Clerk.

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Answer.

In the Circuit Court of the United States, for the Ninth Circuit,
 Northern District of California.

J. W. CASSIDY,	}
Plaintiff,	
vs.	}
HUNT BROTHERS' FRUIT	
PACKING COMPANY,	
Defendant.	

Now comes the said defendant and denies generally and specifically each and every allegation contained in the plaintiff's complaint, on file herein, and says that it is not guilty of the grievances therein charged against it or any or either, or any part thereof, and of this the defendant puts itself upon the country.

Wherefore, defendant demands judgment for its costs.

WHEATON, KALLOCH & KIERCE,

Attorneys for Defendant.

(Endorsed :) Service of the within answer and receipt of a copy thereof admitted this 8th day of August, 1891.

LANGHORNE & MILLER,

Attorneys for Plaintiff.

Filed 8th day of August, A. D. 1891.

L. S. B. SAWYER, *Clerk.*

Notice of Special Matter.

In the United States Circuit Court, Northern District of California.

J. W. CASSIDY,	} Plaintiff,
<i>vs.</i>	
HUNT BROTHERS' FRUIT	} Defendant.
PACKING COMPANY,	
Defendant.	

The plaintiff and Messrs. Langhorne & Miller, his attorneys, will please take notice that upon the trial of the above entitled cause the defendant will prove in accordance with the Statute of the United States in such cases made and provided, that the patentee, J. W. Cassidy, to whom the letters patent on which this suit is based were granted, and which are set out in plaintiff's declaration herein filed was not the first and original, or any inventor of the invention and discovery described in and claimed by the said letters patent, but that the said invention and discovery was in fact invented and discovered by and the same principle was known to and had previously been combined by others, and was described in the following United States letters patents, which were respectively granted to the following named persons at the following named dates, to-wit:

Letters Patent Numbered 137,459, dated April 1, 1873, and granted to Alexander Mackey for a "Sugar Drier."

Letters Patent Numbered 156,849, bearing date November 17, 1874, and granted to Harrison & Savery for a "Drying Apparatus."

Letters Patent Number 94,967, bearing date September 21, 1869, and granted to Oscar F. Mayhew for "Grain Driers."

9 Letters Patent No. 115,833, bearing date June 13, 1871, and granted to Thomas W. Eaton for a "Grain Drier."

Letters Patent No. 107,417, bearing date September 13, 1870, and granted to Marshall P. Smith for a "drier."

Letters Patent No. 155,286, bearing date September 22, 1874, and granted to J. O. Button for an "Improvement in Fruit Driers."

Letters Patent No. 29,390, bearing date July 31, 1860, and granted to A. C. Lewis, for an "Improvement in "Fruit Drying Apparatus."

Letters Patent No. 179,275, bearing date June 27th, 1876, and granted to Samuel W. Craven for a "Drying House."

Letters Patent No. 124,944, bearing date March 26th, 1872, and granted to Elisha Foote and M. P. Smith for a "Drier."

Letters Patent No. 48,733, bearing date July 11th, 1865, and granted to Adam Snyder for a "Fruit Dryer."

Letters Patent No. 108,289, and granted to Joseph B. Okey, assignor of one-half to F. A. Lehr, for an "Improvement in Fruit

Driers" dated October 11th, 1870.

Letters Patent No. 134,528, bearing date Jan. 7th, 1873, and granted to Alfred Edwards for "Fruit Driers."

Letters Patent No. 138,516, bearing date May 6th, 1873, and granted to G. R. Nebinger for "Fruit Driers."

Letters Patent No. 133,060, bearing date November 12th, 1872, and granted to B. L. Ryder for an "Improved Fruit Drier."

Letters Patent No. 137,634, bearing date April 8th, 1873, and granted to John Stevenson, for an "Improved Fruit Drier."

Letters Patent No. 143,949, bearing date October 21st, 1873, and granted to John Williams for an "Improved Apparatus for Drying Fruit."

Letters Patent No. 147,860, bearing date February 24th, 1874, and granted to F. S. Packard for "Fruit Dryers."

Letters Patent No. 160,587, dated March 9th, 1875, and granted to Levi A. Gould for an "Improved Fruit Drier."

Letters Patent No. 158,499, bearing date January 5th, 1875, and granted to Edgar A. Jones and Charles W. Jones for "Fruit Driers."

Letters Patent No. 171,202, bearing date December 14th, 1875, and granted to Lee Whittlesey for "Fruit Driers."

Letters Patent No. 160,860, bearing date March 16th, 1875, and granted to J. J. Adgate for a Lifting Jack.

Dated, October 26th, 1891.

WHEATON, KALLOCH & KIERCE,

Attorneys for Defendant.

Service of the foregoing notice of special matter admitted by copy this 26th day of October, 1891.

LANGHORNE & MILLER,

Attorneys for Plaintiff.

(Endorsed:) Filed October 26th, 1891.

L. S. B. SAWYER, *Clerk.*

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Verdict.

U. S. Circuit Court, Northern District of California.

JOHN W. CASSIDY,

v.

HUNT BROTHERS FRUIT' PACK-
ING COMPANY.

} No. 11,361.

We the jury find in favor of the plaintiff and assess the damages at the sum of thirteen hundred and fifty dollars (\$1,350.00).

JACOB BACON,

Foreman.

(Endorsed:) Verdict, Filed December 29, 1891.

L. S. B. SAWYER, *Clerk.*

Judgment.

In the Circuit Court of the United States, Ninth Judicial Circuit,
Northern District of California.

JOHN W. CASSIDY,

vs.

HUNT BROTHERS' FRUIT PACK-
ING COMPANY.

} No. 11,361.

This cause having come on regularly for trial on the 18th day of December, 1891, being a day in the November, 1891, term of said Court, before the Court and a jury of twelve men, duly impaneled, J. H. Miller, Esq., appearing on behalf of the plaintiff, and M. A. Wheaton and F. J. Kierce, Esqs., appearing on behalf of the defendant, and the Court having on the 22d day of December excused one of the jurors from further attendance in the cause, and counsel having stipulated that the trial of the cause proceed before the Court and eleven jurors, and the trial having been proceeded with before the Court and eleven jurors, on the 22d, 23d, and 24th days of December, in said year and term, and the Court having on the 24th day of said December excused another of the jurors from further attendance in the cause, and counsel having stipulated that the trial of the cause proceed before the Court and ten jurors, and the trial before the Court and ten jurors having been proceeded with on said 24th day of December and the 29th day of December in said year and term, and the evidence, oral and documentary, on behalf of the respective parties, having been introduced, and the evidence having been closed, and the cause, after arguments of counsel, and the instructions of the Court having been submitted to the jury, and the jury having subsequently rendered the following verdict:—"We, the jury find in favor of the plaintiff and assess the damages at the sum of thirteen hundred and fifty dollars (\$1350.00)," and the Court having ordered that judgment be entered herein, in accordance with said verdict, and for costs.

Now therefore, by virtue of the law, and by reason of the premises aforesaid, it is considered by the Court, that John W. Cassidy, plaintiff, do have and recover of and from Hunt Brothers' Fruit Packing Company, defendant, the sum of thirteen hundred and fifty dollars (\$1,350.) damages, together with his costs in this behalf expended, taxed at \$90.30.

Judgment entered December 29, 1891.

L. S. B. SAWYER, *Clerk.*

I hereby certify that the foregoing is a full, true and correct copy of an original judgment entered in the above entitled cause.

Attest my hand and the seal of said Circuit Court this 29th day of December, A. D., 1891.

[SEAL.]

L. S. B. SAWYER, *Clerk.*

(Endorsed:) Filed December 29, 1891. L. S. B. Sawyer, Clerk.

14. *Certificate to Judgment Roll.*

In the Circuit Court of the United States, Ninth Judicial Circuit, in and for the Northern District of California.

JOHN W. CASSIDY,	}	No. 11,361.
<i>vs.</i>		
HUNT BROTHERS' FRUIT PACK- ING COMPANY.		

I, L. S. B. Sawyer, Clerk of the Circuit Court of the United States for the Ninth Judicial Circuit, Northern District of California, do hereby certify that the foregoing papers hereto annexed constitute the judgment roll in the above entitled action.

Attest my hand and the seal of said Circuit Court, this 29th day of December, 1891.

[SEAL.]

L. S. B. SAWYER, *Clerk,*

By W. B. BEAIZLEY, *Deputy Clerk.*

(Endorsed:) Judgment Roll, filed December 29, 1891.

L. S. B. SAWYER, *Clerk.*

By W. B. BEAIZLEY, *Deputy Clerk.*

15. *Bill of Exceptions.*

In the United States Circuit Court, Northern District of California.

J. W. CASSIDY,	}	No. 11,361.
Plaintiff,		
<i>vs.</i>	}	
HUNT BROTHERS' FRUIT PACK-		
ING COMPANY (a corporation), Defendant.		

This was an action at law brought to recover damages for an alleged infringement of United States Letters Patent Number 172,608, bearing date January 25th, 1876, and granted to John W. Cassidy for an alleged improvement in a drying apparatus.

The case came on regularly for trial on the 18th day of December, 1891, before Hon. T. P. Hawley, acting as Circuit Judge, Messrs. Langhorne & Miller appearing as counsel for plaintiff, and Messrs. Wheaton, Kalloch & Kierce appearing as counsel for defendant.

A jury was duly impaneled, and thereupon the following proceedings were had and testimony taken.

(It appearing before any witness was sworn that George W. Beaver, one of the jurors impaneled in the case, was sick and unable to attend the trial of the cause, the respective counsel thereupon stipulated that the case might be tried with eleven jurors.)

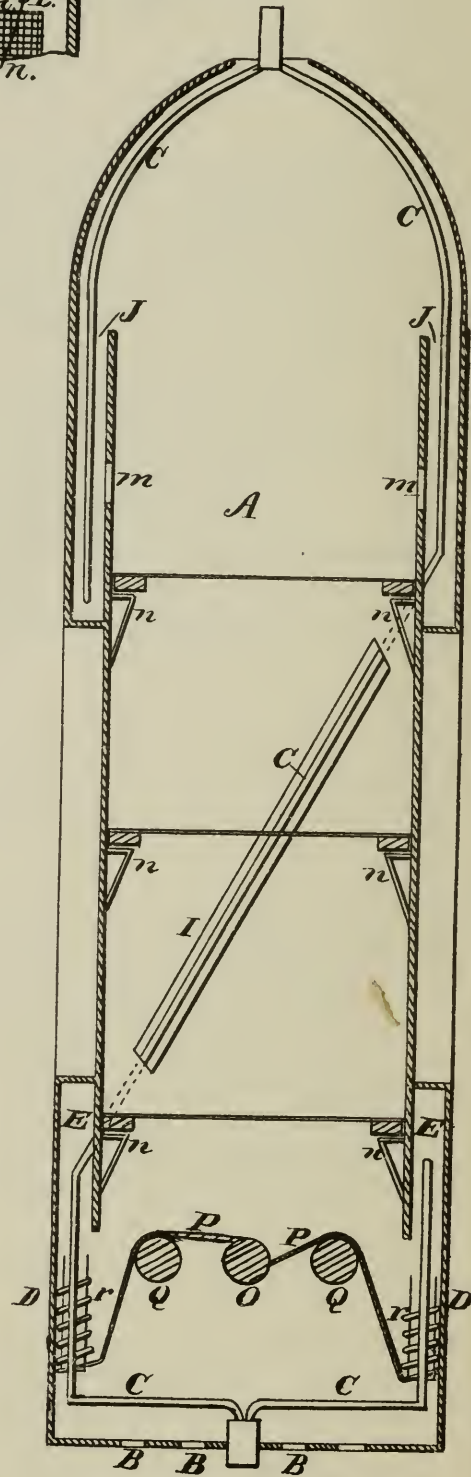
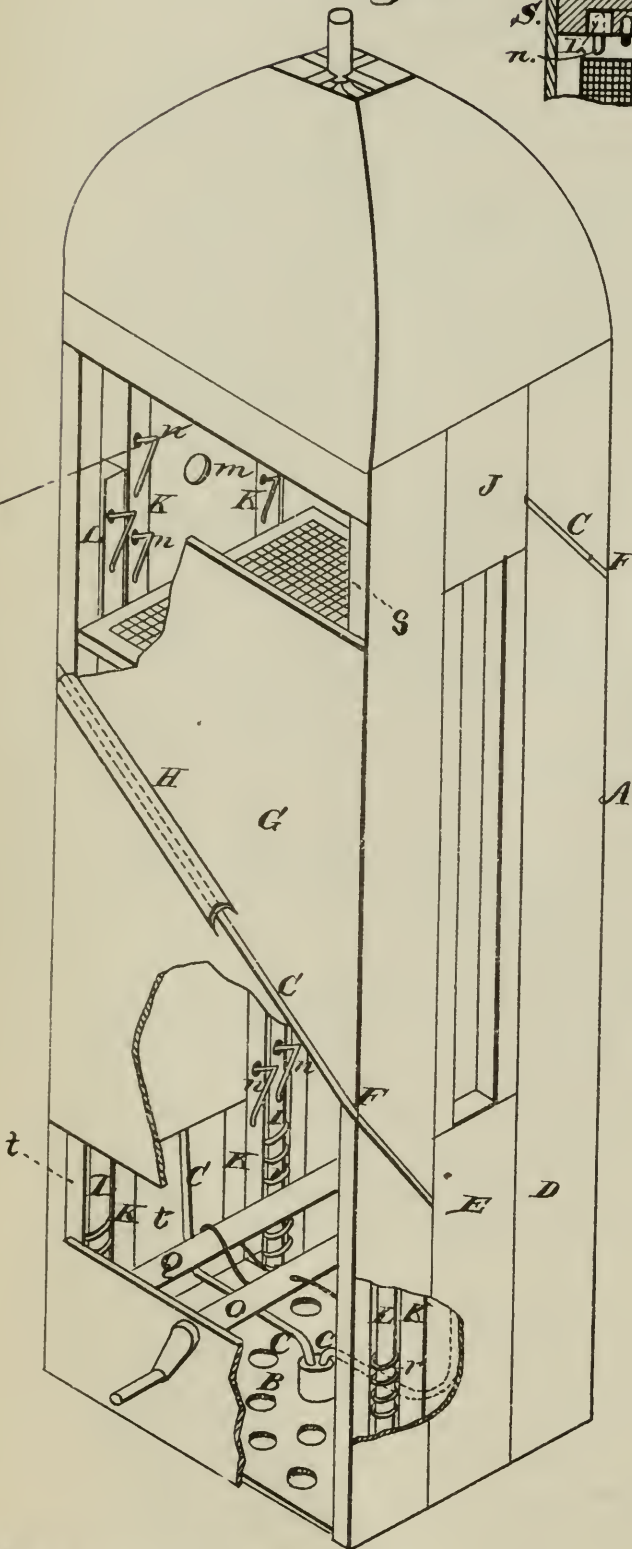
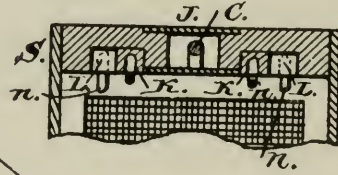
John W. Cassidy, the plaintiff, called on his own behalf, was sworn, and testified as follows:

MR. MILLER. Q. What is your age?

Fig. 1.

Fig. 3.

Fig. 2.



Witnesses
 Geo. H. Strong
 J. L. Brown

Inventor
 John. W. Cassidy

A. 69. I have lived in Petaluma since 1858. I came to
 16 California in 1852. I came from Wayne County, New York,
 to California. There was no fruit drying at that time in
 Wayne County except by the sun. In Petaluma I have princi-
 pally been engaged in raising, drying and curing fruit. My first
 drying machine was made, I think, in 1867. I put up a drying
 chamber and operated it several years. The next drier I put up
 was like the one shown in the patent sued upon in this case. I put
 that up about the first of May, 1874. It stood some three or four
 weeks and was then accidentally burned down. I am the John
 W. Cassidy mentioned in the patent sued upon in this case.

(The patent sued upon was here introduced in evidence, marked
 Plaintiff's Exhibit 1, and the following is a thereof, to-wit:

UNITED STATES PATENT OFFICE.

John W. Cassidy, of Petaluma, California.

Improvement in Drying Apparatus.

Specification forming part of Letters Patent No. 172,608, dated
 January 25, 1876.

Application filed March 8, 1875.

To all whom it may concern:

Be it known that I, John W. Cassidy, of Petaluma, Sonoma
 County, State of California, have invented a Drying Apparatus; and
 I do hereby declare the following description and accompanying
 drawings are sufficient to enable any person skilled in the art or
 science to which it most nearly appertains, to make and use my
 said invention without further invention or experiment.

My invention relates to an improved device for desiccating fruit
 and other substances by means of artificial heat; and it consists,
 first, in a novel method of utilizing the heat which passes through
 the flues from the furnace, and by leading these flues around the
 chamber within suitable pipes or cases, and making certain open-
 ings from these cases into the chamber, I am enabled to admit
 heated air from any or all sides, and at different heights between
 the layers of fruit, while heat is also admitted from the bottom of
 the chamber, or not, as may be desired.

My invention also consists in a novel means of moving the fruit
 within the chamber, from the time it is admitted until it is again
 removed.

Referring to the accompanying drawings for a more complete
 explanation of my invention, Figure 1 is a perspective view of my
 invention, with a portion of the chamber broken away. Fig. 2 is
 a vertical section in elevation.

A is the chamber of a drier, and it is made of considerable height,
 so that the fruit can be admitted from below and moved upward to
 the place of removal from the chamber. The furnace or heater is
 placed below the chamber, and the heated air is admitted through
 openings made in the bottom of the chamber, as shown at B, if

desired, but the principal part of the heat, the smoke, and gases of combustion are conveyed away from the furnace by means of flues C, which necessarily carry off considerable heat. This heat is ordinarily lost, but I utilize it, and, at the same time, use it at points where it will be of more value than at present, by introducing it at various points around the chamber, and horizontally between the trays. In order to do this I carry the flues C over the bottom plate of the chamber from the center to opposite sides D, where they pass upward a short distance within inclosing-cases, as shown at E, and these cases, opening toward the interior of the chamber, will direct the heat of the flues into it up to the point where they turn, and are carried diagonally across their respective sides E to the corners, as shown at F. From the corner the flues are again carried diagonally across the two remaining fronts G, and in opposite directions. The flues are also inclosed in cases H on these two sides, and slots I are cut from the cases, so as to open into the chamber and admit another portion of the heated air between the layers of fruit at different heights. After crossing the faces G, the flues are again bent so as to cross the sides D diagonally until they reach the center, when they are carried into the vertical cases J which extend to the top of the drier. Openings *m* are made from the cases J, and thus another portion of heat is admitted to the chamber near the top, to finish the operation. From this point the flues may be carried up along the dome to a central discharge opening or chimney.

Various equivalent methods of leading the flues and utilizing their heat may be employed and will readily suggest themselves, but I have found the present arrangement the simplest and most economical, and I am thus enabled to introduce heat at the right angles with the travel of the fruit, and at any point.

In order to elevate and support the trays of fruit after they are introduced, I have employed a combination of movable and stationary standards upon two opposite sides of the chamber, and these standards are provided with spring catches, which can be forced inward to allow a tray to pass up, but will return to their place after it passes and prevent its going down.

Four stationary standards, K K, are set into the sides of the chamber, and extend vertically from top to bottom near the corners. The other four, L L, can be moved up and down in slots, and stand by the side of the standards K. Each set of standards is provided with spring-catches or supports which are formed as shown at *n* and *n'*, so that a tray moving upward will depress them into the posts, but they will spring out after it passes.

The operation will then be as follows: A tray full of fruit being introduced through the lower door *t* will rest upon four pins projecting from the movable standards or posts. These posts being then elevated, by means hereinafter described, the tray will be carried

up until it passes the first set of catches n , upon the posts K . The posts L are then allowed to descend, and will leave the tray resting upon these catches. As the posts L descend, four similar catches, n' , upon them will be depressed and pass below the tray, so that when they are again elevated these last catches will lift the tray above the next set upon the stationary posts, and, in this manner, the trays are gradually moved from the bottom to the top of the chamber, where they are removed by the door s . Catches which would fall out by gravitation might be substituted for the springs, in some cases. The movable posts L may be elevated and depressed in many ways, as by cams, eccentrics, &c., but in the present case I have employed a central roller, O , with a crank at one end. Upon this roller cords or chains P are coiled, and their opposite ends, after passing over friction-rollers $Q Q$, are secured to the lower ends of the posts L . By turning the crank, the chains will be coiled upon the roller o , and the posts lifted, simultaneously. If necessary, spiral or other springs r may be employed to cause the posts to descend, but in the full-sized machine the weight will be sufficient.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a drying-chamber, the pipes or flues C passing diagonally along the slotted openings I , around and outside of the drier, and provided with coverings $E H J$, substantially as and for the purpose set forth.

In combination with a drier, the stationary posts K , provided with spring-catches $n n$, and the vertically moving posts L , provided with the spring-catches $n' n'$, and suitable mechanism for operating the posts L , substantially as and for the purpose set forth.

In witness whereof I hereunto set my hand and seal.

[SEAL.]

JOHN W. CASSIDY.

Witnesses:

GEO. H. STRONG,

JNO. L. BOONE.

17 MR. MILLER. Q. What is this model that I now present to you?

A. It is the same as my patent. It was made by a man named Keyes. I am familiar with the second claim of this patent. There are devices in that model to represent that claim.

Q. Please take this patent and this model together and explain to the jury that device so as to show them how it operates?

A. In the first place, get down to the mechanism—have got to have something that is handy, and after trying several I found this the most convenient to raise my trays, from the fact that my trays have all got to act uniform. If they should clamp in there the trays would not go up right, and I used this here, and a bevel here, and you can adjust it so that every tray and every spring

comes exactly right at the proper time. In order to raise my fruit I use what they call a movable post. I put in catches in order to hold the trays, and by so doing it brings the spring up in the stationary posts. That spring will hold the tray when I reverse that and the movable standard goes down, and by that means I can fill up the tray from the bottom to the top. It is much better to have your greatest heat on the greenest fruit, and leave it in five or ten minutes until it is partially dried, and by turning this that way, we raise that up step by step, and it is all kept separately, so that any time you can take out fruit at any place you want to. Sometimes fruit gets dried and you want to take it out here, and some-run it to the top. In order to hold that you have these stationary catches here.

18 A Juror. Q. In order to get that in you turn those posts back?

A. Yes—posts or slides all the same thing. By raising that up again it passes the catches. They all set uniform all around, and by reversing it, it brings it down again. That is ready for another layer of fruit. The green fruit is put into the drier at the bottom and taken out at the top. The object of having this moving of the fruit inside of the drier is in order to get at the heat at the most available points. If you should put this in by hand it would require a great deal of extra labor. Sometimes if the fruit dried here or there, or *vice versa*, and taking it out by hand, it would require a great deal of time and also loss of heat, and for that reason I have that thing against the boards, so as to leave the chamber entirely closed. I insert the tray and close that down immediately, and when it comes up to the top, instead of opening the whole side, take it out here, and that retains the heat; whereas if I took it out by hand I would have to leave the whole side open, and leave it open perhaps fifteen minutes at a time in order to adjust those trays up and down.

A Juror. Q. You do not make any claim for that table do you?

A. No sir. My claim is simply on the slides and posts.

The degree of temperature generally used in these driers for drying fruit, is about 200. I have caused ten or fifteen driers of this kind to be built in Petaluma, at the machine shops of Cam and Rod. Some of them were used in Ventura county, some in Monterey, two in Santa Cruz, three in Sonoma. I think there are sixteen or seventeen in Ventura county, that is I did not build all of them, but I built some of them.

19 In size they were three feet and a half, the trays, and the trays run from twenty to thirty in a drier, according to the size that the party wanted them. I have used these driers myself, have examined their mode of operation, and noticed the success with which they operated. That success has been good.

With these driers I have dried prunes, plums, peaches, apricots, pears, apples—in fact, all kinds of fruit that is dried by the sun or artificial. This year I dried a small quantity. Last year in my factory at home and in Sonoma I dried some ten or fifteen tons, after they were dried. I have three driers at Sonoma, made according to my patent, and one at Petaluma. Those at Sonoma have been run two years, including this year, and the one at home for ten or twelve years. This same drier has been running ten or twelve years, excepting this movable post—this standard here—I replaced them, otherwise the drier is just as good as twelve years ago. The movable posts got worn out, that was the first repairs that I made on it for over ten years. I think Mr. Tupper did the mechanical work upon that drier.

The selling price for these driers that I have made or caused to be made has been two hundred and fifty dollars. The cost of manufacturing them has been about \$125.00.

I know the Hunt Brothers Fruit Packing Company of Santa Rosa. I have known the three Hunts who are connected with that firm—the father and two sons who are present in the Court-room—for some ten or twelve years. I have been in their establishment at Santa Rosa where they dry fruit. I have seen 18 driers there in operation. That was in July a year ago, I think, the first time I saw them.

20 Q. Describe the devices they had for raising the trays?

A. I think this model is as near exact as it can be. The trays are held up by catches and fall out by gravity, or gravitation catches, so that each time you move that up it takes the tray precisely as it does this—just moves it one step. The frame-work is down at the bottom, and set the tray there, and I want to move that one step, and now I want to move this one step, just the same as that (illustrating). Now I put another one in, and the same device of putting the tray in the bottom while the fruit is green and fresh, and move it gradually to the top, and when they get to the top, if the heat was all right, the fruit was sufficiently dried to take the fruit and put in a pile, and then that tray would be emptied and taken out and put in the bottom. You see that is the sliding post the same as that. You see it is a stationary post the same as that. You see they have a set of posts at each corner, precisely as that. I use my finger on the mechanism, because I have no claim on the patent about raising these up at all—do not make any claim.

A Juror. Q. What contrivances do Hunt Brothers use for raising the trays?

A. They have a lever. I suppose the fulcrum is about here, a cross piece, and I suppose the mechanism throws it up. In that respect they use a lever instead of a crank.

I never had any conversation with any of the Hunt Brothers

about their infringing my patent. I spoke to Mr. Hunt, the old gentleman, when he first commenced building his drying factory, some eight years ago. He was excavating ground and said he was going to put up a drying factory. I asked him what kind of a machine he was going to put up, and he said he was going to put up one better than mine. I told him it would be better to buy of me. He said no, he would build a better drier.

21. He said, "I don't know but what I shall have to use some of your devices." I said, "You are at liberty to use any device I have, provided you don't infringe on me." He said, "I ain't going to infringe on you." I said, "Go ahead, but if you do, perhaps there will be some trouble." I don't know that I had anything to say to him afterwards about it.

I don't know that he saw any of my driers prior to that time. He built them at Green Valley, Sonoma county. I am positive I saw five there. I don't know how many he built at that time, because I don't know that I went there again until this year. I caused notice to be served upon them before this suit in regard to the infringement.

From my fourteenth year I was always in mechanism. The first was building agricultural machinery, part of the time I was building woolen machinery and pattern making and setting up and operating machinery. I worked with my father a good many years. He was a mechanic, and I presume you might call it serving my time. I worked as a mechanic in New York. Since coming to California I worked in the Golden State Miners' Foundry, and also in the Vulcan. In my judgment the gravity catches used by the defendant are precisely the same as the spring catches. They accomplish the same work. A spring would naturally work on the same principle as a gravity catch for holding the trays and moving them from step to step. I have always known of springs being the mechanical equivalents of weights in mechanics. That is generally conceded by mechanics.

Q. Look at this small model and state what that is?

A. That is what we would call a gravity catch — falling out by gravitation. The heaviest part stands out from a perpendicular
22 line, and as the body passes it, it falls there until it gets over, and then it falls out. That is weight. Here is another one. That is a spring where it requires weight in order to bring that out. That accomplishes the same thing, and those movable posts in here, Hunt or mine, neither one could get that fruit up, unless it was on movable posts—the sliding standard. That gravity catch in the model represents the devices of the defendant. I got it at the Santa Rosa foundry. I don't know who made the driers for Hunt Brothers.

The first device I got up for elevating trays when I commenced this business was the gravity catch. That was about the 1st of

May, 1874. I then dried fruit with it. That is the first idea I had, and that had gravity catches.

Q. When was it that you put in spring catches?

A. In 1875, the next year—those three first I built. The first one I built was the same as that with the exception of this gravity catch. I had springs in that, but I made gravity catch in that. The two next I built in the same factory I used only just four springs, and in putting in my tray that would bend it up over a spring or a catch, and would hold it there, and the next springs have lugs on the corners four inches high, and take the next above it, so that when that chamber was full it was like a pile of bricks—could not move either one of them unless you got them from the top.

Q. What have you done towards introducing or developing your patent since you obtained it?

A. I have sent out about 15,000 circulars all over the United States, took pains to get the postoffice addresses, sent them to postmasters and got them to distribute them as far as I could to individuals. I have had two agents in New York working, one in Wayne county, and one in Erie county and an agent in Oregon.

I don't know whether I had any more or not.

23 I know of three or four driers made according to my invention being used in Ventura county. I have been informed that there are a good many in Santa Clara county. My two or three agents back there several years ago said there was so many infringements used that they could not do anything; had to abandon the field on account of so many infringements, the same as this.

The reason I have not prosecuted infringers of my patent is because I was advised by an attorney that it would be better for me to let it go until the expiration or near the expiration of the patent, and then commence suit. That is one of the reasons, perhaps the greatest reason, and for the last three or four years I have not been pressing the matter much. Suits have been brought in my name in New York on this patent. That suit is not decided yet.

I have had all facilities to put up those driers as fast as people required them—machine shops and foundries and planing mills and everything else and good mechanics.

I have been paid royalties for those driers in New York.

The trays of the driers I saw in Hunt Brothers Fruit Packing Company, were three and a half feet square. I think there was a material difference in the cost of manufacturing his and mine. Mine, including the furnace and all, amounts to about \$125. Without the furnace it would be about \$25.00 less.

One reason why I have not collected royalties on these driers in California, is because the attorneys' fees were too much. I had not the money to fight the suit—commence suit. That was the greatest reason I did not commence several years ago. I came down

24 and consulted¹ some lawyers with the express purpose of suing a party down in Ventura county—I think about six years ago—and the attorney I went to see wanted \$1000.00, and I had not it and therefore had to stop. I have not collected royalties from people in California for infringing my drier for want of means to prosecute the case.

MR. MILLER. Q. Mr. Cassidy have you fixed a royalty on your driers?

A. Yes sir.

Q. What royalty?

A. A hundred dollars.

Q. Have you received any royalties on them before?

A. I have.

Q. Where have you received them?

A. In the State of New York.

Q. More than one?

A. Yes sir.

Cross Examination.

MR. WHEATON. Q. In the instances where you have received a royalty in New York, had they already infringed on your patent?

A. No sir, not to my knowledge. Two parties in New York paid me \$100. apiece for the privilege of erecting driers that would contain my patented device. Nobody in this country had directly paid me a royalty; only giving me the profit on a machine, \$250. I had an agreement with a man who went to Oregon named Beard. He was to pay me \$100 a machine. He did not pay me anything. He built some. The parties who paid me \$100. royalty in New York wrote to me that they wished to build machines. In the letter they made me the offer, both of them. I accepted and sent each of them a power of attorney to go to work. They offered to pay me \$100. on a three and a half foot machine.

25 Q. Did they at the same time wish to become your agents in selling those machines?

A. Simply the fact that they were paying me that amount of royalty, and manufacturing machines for certain territories. They worked in the territory in building machines.

Q. Let me see if I understand that right? These parties were acting as your agents and agreed to pay you \$100. royalty for all the machines they would build, is that it?

A. They were building machines and paying me royalty in specified territory; for instance, one man has Wayne county; he built me the machines and sold them and sent me the royalty; another man in Erie county, he built machines and did the same thing. They were building machines under a license from me and the agreement was that each machine they built they would send me \$100. We divided the rental between the man and myself, so that really I got fifty dollars and he got fifty dollars.

Q. How many machines did you get \$100. on yourself?

A. I qualified that just now in my last answer. The royalty was \$100., but he was working for me, and we divided it. I got \$50.00 and he got \$50.00. I could not state on how many machines I did actually get \$50. royalty. It is a good many years ago and my correspondence with him is all destroyed.

Q. Are you sure that either one of those men ever sent you \$50 for a single machine?

A. Yes sir, I am positive of it.

Q. Which one of those men was it?

A. In Wayne county. He sent me several hundred dollars. That shows that they built quite a good many. I don't remember the amount. It was \$200 or \$300. May be a little more.

Q. In this country no one has paid you royalty on a single machine, for the privilege of building it?

26. A. No sir, not here; my contract was with Beard who went to Oregon. He was to pay me \$100 a machine. He wanted to build machines. I made that contract with him and gave him a power of attorney to go on and build machines under that stipulation. He was to send me \$100 on each machine. That must be about ten years ago. I cannot get at the exact date or the exact year. My mind has never been called to it till just now.

The first fruit drying machine where the trays of fruit were put in at the bottom and carried gradually to the top, one above another, was the Alden machine. I saw that in 1874 or 1875, somewhere about that time.

Q. What is the difference in operation between that machine and yours?

A. I think I can explain this thing with this model, Plaintiff's Exhibit No. 2. I suppose you all know what an endless chain' is. It is formed by links, and these flat links are fetched together and run over pulleys or sprocket wheels as this endless chain comes up. They are far enough apart to keep the trays separate. There would be an arm to each one of those links. As it comes up on the sprocket wheel they would be four square or six square or eight square wide, enough to accomodate the link. The sprocket wheel is where the endless chain runs over at the top and one corresponding at the bottom. As these links comes up there is a projection on the link that comes through perhaps a couple of inches, to receive the tray as you insert it. As you put that in with mechanism, those chains all move together. There is a chain on each one, so that when you apply the mechanism, each chain moves in unison. As the next link comes around, you put in another tray and continue until it is full.

27. A JUROR. Q. These arms of the chain would project out?

A. Yes sir, and that would hold the tray until it got to the top, and the tray then would be removed before it struck the

sprocket wheel. When it struck the sprocket wheel one portion of the chain would be going down outside while another portion would be coming up inside. That is the way the Alden machine is operated.

MR. WHEATON. Q. So far as drying the fruit is concerned, and the movement of the tray is upwards, what is the difference between the Alden machine and your machine?

A. It would be the same. I will not say the movement of drying would be the same. The movement is different.

Q. I speak of the movement of the tray alone. Would they not move up the same in one case as in another, provided the machine was worked at the same rate of speed and same intervals of time?

A. Yes sir.

Q. The trays would be carried up just the same in one machine as they could in another?

A. Yes, sir.

Q. In neither case are the trays constantly moved up, but are carried up step by step, and allowed to remain there until the fruit is dried a while, and the bottom one taken out, refilled, and put in at the bottom and carried up another step until the next one is sufficiently dried to remove?

A. Yes, sir. Between the times of movement of the machine to carry a tray up one step from fifteen minutes to half an hour intervene, owing to the variety of fruit and the amount of heat.

Q. Are the furnaces in the Alden machine capable of being arranged as in your machine?

28 A. I don't know; the furnace certainly is at the bottom, but what kind of a furnace they use I don't know.

Q. What other drying machine of this stack, or cappillary kind, is there that you know of?

A. That is the only one I ever saw outside of mine, at that time. I have since seen them with those gravitating catches, but not before. The Alden machine is the only machine that I saw outside of mine.

Q. Would you not understand that your invention was to substitute this kind of movable posts and these catches for the endless chain of Alden for the purpose of carrying up those fruit trays?

A. I did not so intend it. I intended to carry up my fruit trays by those springs, without any regard to what Alden or any one else did.

Q. Did you make any other change at that time that you can think of in fruit trays, so far as the second claim of your patent is concerned, other than to substitute this kind of catches and posts for the endless chain with the arms on, which are used in the Alden drier?

A. I have no recollection of ever having made any change from what you see here.

Q. What change did your invention make in fruit driers?

A. It had a tendency of rather revolutionizing the fruit drying business, for immediately after I got my patent most every one was using these devices East. They were using my catches and sliding posts. The Alden had the name of being a well known and celebrated fruit dryer. My dryer would dry the same as the Alden.

I don't suppose it would dry any different kind of fruit. I don't think it would dry it in any different manner.

29

Re-direct Examination.

MR. MILLER. Q. You stated in your direct examination that the Hunt Brothers Fruit Packing Company had eighteen dryers?

A. I did. Twelve were in one house and six were in another, probably twenty rods apart.

Q. Had your invention any advantage over the Alden dryer?

A. It had very much. As I was showing you before, this endless chain in order to reach a couple of stories, perhaps ten or fifteen feet each, would be thirty feet long, and enough at the end to cover those sprocket wheels. The cost of them is quite material, much more so than the cost of mine. Sometimes the endless chain breaks. If it breaks, the whole thing from the top to the bottom is dumped down on the furnace while if one of these springs or catches should get out of place it does not materially hurt the working of the machine at all, because nothing goes down. The catch below will hold and sustain it above and still raise it. While this being comparatively cheap, the Alden is very expensive. In the Alden drier half of the chain is inside and the other half outside. In order to make it revolve over the top, as it comes down on the outside, it ascends on the inside. That gathers up the fruit and takes it to the top. The number of apertures necessary to be made in a drying chamber in order to operate an endless chain machine like the Alden would depend considerably on the height of the machine required. The machines they used were about ten to twelve feet, or a little more. A portion of the chain was outside and the other portion inside the chamber.

30 Q. Where was the hole or aperture cut in the chamber for the chain to enter?

A. As it entered inside it rolled over the sprocket wheels, coming down to the bottom, it cuts a hole in the bottom. Whatever the width of the chain is it has to have that space at the bottom in order to bring the chain through. It also has a space cut at the top; it came through the top on the same principle. Those chains were three or four inches wide as near as I can remember.

Q. So that this chain was revolving continually, half of it on the outside cold atmosphere, and the other half on the inside hot atmosphere?

A. Yes, sir. If one of my catches should break it would just

simply let the tray hang on to these springs and would move up on a little angle. The drying capacity need not stop. If it was necessary to put one of my catches in, it could be done in five minutes without reducing the heat a particle and work right along.

Q. What would be the comparative cost between a drying chamber made after your patent and one after the Alden patent?

MR. WHEATON. Q. Did you ever make any of the Alden fruit dryers?

A. No, sir.

Q. Do you know what they cost, speaking now from actual knowledge.

A. No, sir; not from actual knowledge. I could approximate it.

Q. Do you know what the chains suitable for working in the Alden Chamber cost per foot or per pound?

A. I think some eight or ten cents per pound, perhaps more. I would not state anything about that because I don't know.

MR. MILLER. Q. You are a mechanic?

31 A. Yes, sir. I have been for a number of years engaged in mechanical pursuits. I have seen a great many driers of different kinds. I think my knowledge of mechanics is sufficient for me to give an intelligent opinion as to the cost of a piece of machinery when I see it.

Q. With that as a basis I will repeat the question and will ask you which in your judgment, would be the cheapest to construct, yours or the Alden?

MR. WHEATON. I object because the witness says he does not know what the Alden drier would cost.

THE COURT. I will allow the testimony.

First Exception.

To which said ruling of the Court the counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

A. I think so far as the shifting apparatus is concerned this would probably be fifty per cent cheaper than the Alden, fifty or seventy-five.

MR. MILLER. Q. Did you ever see any Alden driers in operation?

A. I saw five at San Lorenzo in 1874. They are not used in California now, to my knowledge. I think they went out of use about 1875. I have not seen them in use on this Coast since that year. I have seen about all the fruit driers operated in California during the last ten or fifteen years; not all, but I have seen a good many. A man named Pile had charge of the Alden Drier when they were in use in California. He went East in 1875. I

32 have not heard where he is since. He saw my style of drier before he went East. He examined my drawings, not the machine.

At several periods in the life of my patent I have endeavored to have some attorney take hold and help me out, even on a salary or on a contingent. An attorney would not bring suit because I had not money and could not get it. I tried to have it taken by three different parties in the city on a contingent fee, but neither one would do it. Their prices were so high that I could not reach it, therefore I went back home and plodded away on my fruit orchard. A thousand dollars as a retainer was the cheapest price they asked.

MR. WHEATON. Q. When did you examine the defendant's driers?

A. Last year, I cannot state the month. I was up there and sold them my cherries, and stayed around the building. That was the first intimation I had of there being machinery there. It might have been July, or earlier or later. I don't know that any one showed me around the defendant's works at that time. W. C. Hunt showed me around his canning factory. He did not show me around the driers. The building was full of operators, preparing and drying fruit and taking it out. The carpenters were at work when I was there with the cherries, in both buildings. That was in 1890, a year ago last summer. The defendants were drying fruit when I saw them.

Q. Have you been there since you were selling cherries in 1890?

A. I was there when I went up to consult the defendants in regard to some discrepancies in a settlement. That was the time I saw those fruit driers. I arranged all my business in the office about the cherries, and afterwards went into the drying factory, and did not see either of the defendants there.

33 Q. At that time, after examining this drier, did you hint or intimate to them, that they were infringing your patent?

A. I did not see them to my knowledge at that time.

Q. Who did you reconcile the discrepancies with, in the settlement that you speak of?

A. What I mean to say is, I did not see either one of those gentlemen in the drying factory. I had arranged all of my business in the office about the cherries. Afterwards I went into the drying factory. I have no knowledge whatever of either one of those gentlemen being with me.

Q. You sold your cherries to the defendant?

A. I did.

Q. Did you deliver those cherries yourself, or send them up on the railroad?

A. I sent them up on the car.

Q. Then there was some discrepancy about the settlement for

the payment of those cherries?

A. In regard to weight.

Q. And you went up to have that adjusted?

A. Yes sir.

Q. To Santa Rosa?

A. Yes sir.

Q. And at that time after you had that matter adjusted, you looked around and saw these driers?

A. I think that was the day. I am not positive.

Q. Whether that was the day or some other, did you, when you saw the driers, and was there on the premises, give the defendants, or either of the Hunt Brothers, or any officer of the company that you saw there, any hint or statement or indication that you considered those driers an infringement on any of your rights?

A. I did not.

34 Q. Why did you not if you thought it was?

A. Because I did not see them. I came away immediately, and did not say anything to them about it. I will state further my curiosity was, because they were drying a great many prunes and I wanted to examine the prunes as I was interested in the drying business. That caused me to go in there. When I came to look at the chamber, thinks I, that is mine. I looked in as they were manipulating two machines, and I saw it was precisely like the machine that I first built.

Q. In drying fruit does not a great deal of the fruit stick to the sides of the drier and machinery in it?

A. Some kinds of fruit does.

Q. Do not the machines often get clogged up from the fact of the partially dried fruit sticking to it?

A. The catch that falls by gravity might very much.

Q. Have you not known a great deal of trouble with your machines, because of one side of the tray sticking, when the catches were lowered, and one side of the tray dropping down so that it would turn up edgewise?

A. Not in my present mode of running. I have seen them when they were running with those gravity catches, where the juice would get in the side and the friction would prevent them from dropping out. The difference between the gravity catches and my catches in that respect is that the spring is strong enough to force it out by itself, even if there is a little wax on it. In that respect there is a difference between the catches that operates by springs and those that operate by gravity. The difference is this: The reason why I substituted the spring instead of this gravity catch was, in drying some kinds of fruit the juice when it gets cooked forms a gummy substance there is not much heft in

35 the catch to carry it out by gravity. A little trifle that gets in there will hold it. You see as I hold it now, a little ver-

tical, it will hold it all day long and will not come out, I found it so with my first machine. With this it will always come out; it does not make a bit of difference. For that reason I used this thing in preference to the gravity catch. There is no friction nor anything to quite stop that spring from coming out. Again, if the spring breaks in the machine, it only costs about a cent and a half apiece, with a little hammer you can drive them back almost inside of a minute. Here is a stop to hold them from falling out, and a stop or a wire through the bottom. Let that get broken or loose, instead of taking an awl and pulling that out and driving it back in order to get this in, it will be necessary to take that whole side out, or to take out all the trays and shut it in this way (illustrating). That was another reason why I substituted this spring instead of that gravity catch, because I had to do it 2 or 3 times in order to adjust the catches there.

MR. WHEATON. Q. In the Alden drier, where the chains were used, were there any chains for the trays to turn edgeways on account of sticking?

A. No sir.

Q. So far as that one particular operation was concerned your spring catches are more like the Alden drier, than are the gravity catches of the defendants, are they not?

A. I don't think so. My catch is quite different from a lug, a lug passes over, or a catch or a finger. That does not come in contact with anything, only just to lift the tray. In the Alden drier there was no such sticking, because they went positively round in one direction over the wheel. There was no chains for one edge of a tray to drop back on the Alden dryer, unless one of those fingers broke off. The Alden dryer would not stick. Nor is there any stopping of those catches in my machine by their sticking.

Q. While in the defendant's gravity catches, you say they do stick, and there is a difficulty there resulting in one edge of the tray dropping down. Is that so?

A. They did in mine, the same kind that Hunt Brothers are now using.

Q. In that one respect, avoiding the dropping back of the trays on account of the catch sticking from the dry juice of the fruit that is dried in it, does your machine operate most like the Alden drier, or most like the defendants'?

A. They all have an upward movement. The defendant's mine, Alden's and Smith's, all have an upward movement. At the same time they have a little different mechanism.

Q. What do you understand by the term "mechanical equivalent?"

A. Performing the same work.

Q. You say that the chains and lugs in the Alden machine so

far as receiving the trays, one at a time, at the bottom and carrying them up and permitting them to be removed, one at a time, from the top, operated the same as the devices used in your machine, that is so, is it?

A. The device in my machine goes up by the catches, step by step. Theirs went up on an even grade.

Q. You stated that the different sets of devices carried the trays up in the same way?

A. They carry them to the top but they do not carry them in the same way with my mechanism.

Q. I understood you to testify that they did.

A. If I did I was a little wrong in that.

37 Q. In what different way does yours carry them, from what the chains and lugs in the Alden machine carries them? If there is any different way?

A. They take theirs by an endless chain. I take mine by a sliding post and a stationary post.

Q. Does that endless chain and those lugs and your sliding post with the catches and lugs carry those trays up in the fruit drier in the same way or not?

A. They carry them up on the endless chain and they reach the top on an endless chain. Mine are taken from the bottom with a sliding post and taken to the top. They all reach the top.

Q. What work does yours do, that the chains and lugs in the Alden machine did not do?

A. Really, I could not tell you.

Q. What work did the chains and lugs of the Alden machine do which the sliding posts and spring catches in your machine does not do?

A. The trays are put in the Alden machine; when the endless chain moves, that moves up. When I put it in my machine there, when I turn my mechanism, they move up. They are calculated to both do very near the same work. They would reach the same end; providing the heat and all is all correct at the top, perhaps the same, but there is a difference in mechanism in getting them there.

Q. Are not the chains and the lugs in the Alden machine the spring catches and sliding posts in your machine, the gravity catches and sliding posts in the defendant's machine all mechanical equivalents of each other?

A. They all reach the same result.

38 Q. Are they all mechanical equivalents of each other, as they have been used in the fruit dryer, for the purpose of receiving the trays of fruit at the bottom of the stack, one at a time, carrying them up, and permitting them to be taken out from the top of the stack, one at a time?

A. They are all received at the bottom the same, and all taken

out at the top the same. I do not think they are mechanical equivalents of each other because they are of different constructions.

Q. The spring catches in yours and the defendants are of different construction, are they not?

A. They are constructed differently, mine is a spring, and theirs is a gravity catch. They are made different, and will all reach the same result.

Q. If your spring catches and sliding posts are in your opinion mechanical equivalents of the different gravity catches and sliding posts, although they are differently constructed, and as you have testified, operate in some respects differently, why are not the chains and lugs of the Alden machine mechanical equivalents, both of the devices which you use, and those which the defendant uses, for the purpose of receiving the trays at the bottom of the dryer, one at a time, carrying them up, and permitting them to be withdrawn from the top, one at a time?

A. I think, that so far as the spring and gravity catches are concerned, they would be equivalents, but I cannot see it on the Alden.

Q. Have not machine chains all sizes been sold at very cheap rates for a great many years at the hardware stores, as a common article of commerce?

A. There is perhaps a certain size chain which comes in use all the time and is sold very cheap. Sometimes chains cost
39 very much more, where there is no market for them, where they have to be made expressly for a purpose, 7 or 8 times more. When a chain is manufactured by children, as they do their little chains running on sprocket wheels, those chains should be sufficient to carry a ton weight, because the whole rests from top to bottom on that chain. Every tray rests upon a catch. Every catch is separate from the rest. One tray weighs 24 lbs. That tray has four catches to support the 24 pounds weight. That is 6 pounds to each weight. I don't know and could not tell you the weight of a three and a half foot square tray loaded with green fruit, it might go to 30 to 40 pounds and it might go less. With thirty or forty of those trays all resting on that endless chain, if the chain breaks the whole thing tumbles down to the bottom. If one goes all go. There are four catches. Four times six is 24.

There will be 6 pounds to each corner or spring. Whenever they move it will be precisely the same. Every catch has its weight 6 pounds. When they get up here, that is reversed and the weight comes in on the stationary posts. If either one of those springs break, it would just bring the tray down corner ways about four inches, otherwise in the Alden as I said before it would all go from the top to the bottom, which they have done.

I could not tell what was the largest kind of a drier I ever saw carry fruit. Some of them will carry a ton or more. I cannot tell

without a little calculation what mine would ordinarily carry. Three and a half feet square filled with apples will take from 25 to 30 pounds, perhaps a little over. It will be something under 40 pounds. The number of trays is according to the altitude of the drier. A thirty tray drier would be about the extreme length.

Thirty trays of 40 pounds each would make 1200 pounds.
40 Sometimes any ordinary chain will carry twice 1200 pounds without any danger of breaking, and sometimes if there is a bad link it will break with a good deal less. Chains are not made perfect. I suppose that machine made chains strong enough to carry ten tons have been a common article of merchandise for twenty years past. These are malleable iron chains. I never saw one but what was malleable iron on the sprocket wheels.

JOHN B. TUPPER, called on behalf of plaintiff was sworn and testified as follows:

MR. MILLER. Q. What is your age?

A. 63. I have lived at Petaluma since 1871. I have known Mr. Cassidy the plaintiff for 25 or 30 years. I have seen his fruit driers in operation. The first one I saw had drop catches. That was in Petaluma, I think in 1874 or 1875. I helped to make it. I made the ones he has been using ever since after the first one burned down. I was a machinist then, I worked in a machine shop in Petaluma.

Q. Look at this model Exhibit No. 2, and state whether or not that correctly represents Mr. Cassidy's drier.

A. It is an exact model as nigh after his patent as it can be. I have seen it before. I recognize the device, shown in the model, consisting of the movable and stationary posts and spring catches for elevating the trays. I have seen driers operated on that principle. I have helped build six of them, I think, and have seen them in operation. Every one who used them like them, said they could not be beat.

I do not know the Hunt Brothers. I have been to their
41 fruit packing factory at Santa Rosa. I think I saw six fruit driers there. I think they were all in the same building. That was two months ago, I guess. They were not in operation. They looked as if they had been used.

Q. Do you remember what kind of a device he had for raising the trays?

A. A kind of an arm came out to take hold. I could not tell what that connected with to operate the trays.

Q. How did the device for operating the trays compare with what is shown in the model, Exhibit No. 3?

A. They looked like the same thing, as nigh as I can see I called those catches the drop catch or gravity catch.

Q. How did the device you saw in the Hunt Brothers' drier compare with this model Exhibit No. 4?

A. That is a good deal like it. All I could see was just sticking out. I worked the... back and forth with my finger. They worked backwards and forwards, the same as this wheel as nigh as I can tell.

WILLIAM KEYS called on behalf of plaintiff was sworn and testified as follows:

MR. MILLER. Q. How old are you?

A. 61. I live in Bodego, Sonoma County. I have been a mechanic about 50 years. I have had nothing to do with fruit driers except building models. I built one for Mr. Cassidy in Petaluma, before the New Orleans Exposition. I have seen the Cassidy driers in operation at his own place in Petaluma, when he came for me to build the first model, that went to New Orleans. I built model Exhibit No. 2, three or four years ago under Mr. 42 Cassidy's instructions. The Hunt Brothers have been pointed out to me to-day. I was at their place at Santa Rosa about two months ago. I saw fruit driers there, I believe twelve, six in each row. The twelve driers were all in one building, under one roof.

Q. What kind of a device did they have for elevating trays in the fruit dryer?

A. This and Exhibit 4 is as like it as it could be made, and this is how I built Cassidy's. The catches and the method of operating them in Exhibit 3, are the same in principle as I saw, in the Hunt Brothers' place, only on a different scale.

L. W. SEELY, called on behalf of plaintiff was sworn and testified as follows:

MR. MILLER. Q. What is your business?

A. Solicitor of patents and expert in patent cases. Have been connected with business before the patent office for about 16 years. My place of business before coming to California, was in Washington city, in the same business, soliciting patents. Reside in San Francisco, about two years, in the same business. The main part of my business has been examining inventions and machines and preparing applications for patents upon them. A knowledge of mechanics and mechanical principles is necessary for a correct practicing of my business. It is necessary in preparing the specifications of patents, for the reason that in preparing applications for patents, we have frequently to work from very crude ideas furnished by inventors themselves, or from very rough sketches which have to be worked into an operative device. In those cases it is necessary to prepare the application from an inspection of the machine itself, either in construction or operation, and that must be understood thoroughly.

43 I have testified as an expert in patent cases several times since I have been in San Francisco, several cases.

I have examined the patent marked Exhibit A, granted to John

W. Cassidy, and I think I understand it. The device described in the second claim of the patent is an apparatus for drying fruit. It consists of a tower or inclosed structure.

This is an inclosed structure or tower having a furnace underneath from which hot air is admitted to the interior. The trays which contain the fruit and which are arranged in series one above the other are placed upon the spring catches which are set in fixed vertical posts inside of the drying chamber and near the corner. In the operation of drying, it is necessary to move the trays of fruit from one part of the chamber to the other, so that they shall be exposed to different degrees of temperature. This is accomplished in this case by the use of a sliding post or sliding standard, having spring catches similar to those in a fixed post. When the tray is put in at the bottom, and this shaft is turned, the sliding post will push the tray up until the edge of the tray snaps over the catches on a fixed post, and will be held at its four corners. This shaft is then turned in the other direction, and the sliding post returns to its former position, the tray being held on catches on a fixed post. This operation being repeated while the fresh trays are being put in below, and those below being carried up to the top each tray being held by the catches on the fixed post. They are then removed from the top. So far as the elements of the second claim are concerned I believe that is all. This model, Exhibit 3, does not contain all the elements of a drying apparatus, it 44 shows the device for lifting trays of fruit. It contains all the elements of the second claim of the patent, the fixed post, the movable post, and the series of catches on each, operating in precisely the same way, as they do in the model here, and having the same relation to one another.

Q. What difference, if any, do you find in the construction of the catches between the two models?

A. I do not find any at all except these are gravity catches, and those are springs. So far as raising fruit trays are concerned I should say their operation is identical.

Q. From your experience as an expert, and from your knowledge of mechanical principles as an expert, I will ask you whether or not a weight is an equivalent of a spring for producing pressure in a certain direction?

A. Yes sir, that is one of the elementary principles, one of the first things that a person engaged in the patent business learns, that a weight, as a general thing, is the equivalent of a spring, where it performs substantially the same purpose as a spring. Take a large clock, like that one in the Court-room. The descent of that weight conveys movement to a train of gear wheels which operates the hands, in a small clock there is not room to put such weight, consequently a spring is substituted acting precisely in the same way, performing the same functions and bringing about exactly the

same result and they are the equivalent. In this case it seems to me they are even more identically the same than they would be in a clock. You press that back. It snaps over the top. You press that up, and it falls back by gravity. Suppose that were to bind, and would not fall back, and it was found necessary to put in a spring to force it down. It would certainly be a spring catch then?

45 Q. I will ask you whether or not in your judgment as an expert a device constructed to operate as shown in model, Exhibit 3, would or would not contain all the elements combined in substantially the same way as specified in claim 2 of the patent.

A. I have no doubt it would.

Cross Examination.

MR. WHEATON. Q. You spoke of the difference between a weight and a spring in a clock. You are aware that the old style of clocks originally all run with weights?

A. Yes sir.

Q. Suppose the next man had found an improvement to run that clock by a spring and taken out his patent for his spring alone, in that case would you consider that the weight was the equivalent mechanically, to that spring?

A. If that man was the inventor of a spring I should say that it was a patentable device. If the spring, however, had long been known and used, and the weights had long been known and used, and it was known that they would produce the same results when placed in substantially the same way, I should say if he was the first one to put it in a clock, it would not be patentable.

Q. Suppose that the gravity catches belonged to another inventor and the patent office so decided, and when the patent office instructed him of that fact, that he withdrew a claim which he was already making for spring or other catches, in that case would you consider that gravity catches were the equivalent of spring catches?

A. Yes sir, I should say so.

46

Re-Direct Examination.

MR. MILLER. Q. Explain why that is?

A. In the first place I cannot imagine the patent office doing any such thing. Further than that in the absence of anything in the specifications implying that they were considered equivalents by the inventor, and under those circumstances, it might perhaps be different, but that if there was a statement in the specifications that gravity catches might be used, and the patent office permitted the statement to stand, and issued the patent, then I should say that it appeared right on the face of the patent that the devices were considered in the patent office as equivalents.

Q. You speak of the fact that they made him strike out the words "or other."

A. Yes sir.

Q. Do they allow claims in the alternative in the patent office?

A. No sir.

Q. Then if a person had originally claimed springs or other catches and the patent office should have required him to strike out the words "or other" and he just had in his specifications the statement that gravity catches could be used, would you say that the action of the patent office was a ruling or adjudication or intimation of any kind that spring catches were not the equivalents of gravity catches?

A. I should say that the action of the patent office limited his patent to the use of springs or other catches, which are the equivalents of spring catches.

Q. You would consider the gravity catches to be the equivalents of spring catches?

A. Yes sir.

47 MR. WHEATON. Q. Suppose that the gravity catches were old, and that there was no difference between the old device and what the patent calls for, except the spring catches, would you then consider there was any patentable invention in applying the spring to the catches?

A. Where the gravity catches were old and had been used substantially in the same way, I should not apply for a patent for any one on that. I should not consider there was any patentable invention in it.

MR. MILLER. Q. We desire to offer in evidence another model which is a combination model showing both spring and gravity catches in one device. The said model was marked "Plaintiff's Exhibit No. 5."

J. W. CASSIDY was here recalled for further cross-examination.

MR. WHEATON. Q. At what time was the last royalty received by you from New York, as near as you can fix the date.

A. I think some six years ago as near as I can fix the date. Somewhere about 1885.

Plaintiff rests.

MR. WHEATON. We will ask your honor for an instruction that the jury should bring in a verdict for the defendant on the ground that the plaintiff's own testimony shows that the change that he made consisted of substituting these posts and spring catches—or other catches—I will not make a point on the word spring—for the chains and lugs in the same kind of a dryer.

THE COURT. The motion will be overruled.

Second Exception.

48 To which said ruling of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does.

hereby sign and seal the same.

(A duly certified copy from the records of the United States Patent Office, of the File Wrapper and Contents, in the matter of the letters patent granted to John W. Cassidy, dated January 25th, 1876, and numbered 172,608, for an Improvement in Drying Apparatus, was here introduced and read in evidence, marked Defendant's Exhibit 1, and the following is a copy thereof:

“ Department of the Interior, United States Patent Office.

“ To all persons to whom these Presents shall come, Greeting :

“ This is to certify that the annexed is a true copy from the
 “ Records of this Office of, the File Wrapper and Contents, in the
 “ matter of the letters patent granted to John W. Cassidy, January
 “ 25th, 1876, Number 172,608, for Improvement in Drying Appar-
 “ atus.

“ In testimony whereof I, W. E. Simonds, Commissioner of Pat-
 “ ents, have caused the Seal of the Patent Office to be affixed this
 “ 10th day of September, in the year of our Lord one thousand
 “ eight hundred and ninety-one, and of the Independence of the
 “ United States the one hundred and sixteenth.

“ [SEAL.] W. E. SIMONDS, *Commissioner*.

“ Model 1 dr. \$15. check.

“ *Petition.*

“ *To the Commissioner of Patents :*

“ Your Petitioner John Wintermute Cassidy of Petaluma, Cali-
 “ fornia, prays that a patent may be granted to him for the inven-
 “ tion set forth in the annexed specifications. And I do further

“ pray that you will recognize Dewey & Co., of San Fran-
 49 “ cisco, Cal., and A. H. and R. K. Evans of Washington,

“ D. C. as my Attorneys, hereby appointed to alter or amend
 “ the said specification, and to receive the letters patent when is-
 “ sued.

“ JOHN W. CASSIDY.

“ *Oath.*

“ CITY AND COUNTY OF SAN FRANCISCO, }
 STATE OF CALIFORNIA, } ss.

“ On this 2d day of February 1875 before the subscriber person-
 “ ally appeared the within named John Wintermute Cassidy and
 “ made solemn oath that he verily believes himself to be the or-
 “ iginal and first inventor of the Drying Apparatus herein de-
 “ scribed and that he does not know or believe that the same was
 “ ever before known or used, and that he is a citizen of the United
 “ States.

“ (L. S.)

F. O. WEGENER.

“ *Notary Public.*

“ *To all whom it may concern :*

“ Be it known that I, JOHN W. CASSIDY, of Petaluma, Sonoma
 “ county, State of California, have invented a Drying Apparatus;

“ and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains, to make and use my said invention without further invention or experiment.

“ My invention relates to an improved device for desiccating fruit and other substances by means of artificial heat; and it consists, first, in a novel method of utilizing the heat which passes

50 “ through the flues from the furnace, and by leading these flues around the chamber within suitable pipes or cases,

“ and making certain openings from these cases into the chamber, I am enabled to admit heated air from any or all sides, and at different heights between the layers of fruit, while heat is also admitted from the bottom of the chamber, or not as may be desired.

“ My invention also consists in a novel means of moving the fruit within the chamber, from the time it is admitted until it is again removed.

“ Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of my invention, with a portion of the chamber broken away. Fig. 2 is a vertical section in elevation.

“ A is the chamber of a drier, and it is made of considerable height, so that the fruit can be admitted from below and moved upward to the place of removal from the chamber. The furnace or heater is placed below the chamber, and the heated air is admitted through openings made in the bottom of the chamber, as shown at B, if desired, but the principal part of the heat, the smoke, and gases of combustion are conveyed away from the furnace by means of flues C, which necessarily carry off considerable heat. This heat is ordinarily lost, but I utilize it, and, at the same time, use it at points where it will be of more value than at present, by introducing it at various points around the chamber, and horizontally between the trays. In order to do this I carry the flues C over the bottom plate of the chamber from the center to opposite sides D, where they pass upward a short distance

51 “ within inclosing-cases, as shown at E, and these cases, opening toward the interior of the chamber, will direct the

“ heat of the flues into it up to the point where they turn, and are carried diagonally across their respective sides E to the corners, as shown at F. From the corners the flues are again carried diagonally across the two remaining fronts G, and in opposite directions. The flues are also inclosed in cases H on these two sides, and slots I are cut from the cases, so as to open into the chamber and admit another portion of the heated air between the layers of fruit at different heights. After crossing the faces G, the flues are again bent so as to cross the sides D diagonally until they reach the center, when they are carried into the vertical cases J

which extend to the top of the drier. Openings *m* are made from the cases *J*, and thus another portion of heat is admitted to the chamber near the top, to finish the operation. From this point the flues may be carried up along the dome to a central discharge-opening or chimney.

Various equivalent methods of leading the flues and utilizing their heat may be employed and will readily suggest themselves, but I have found the present arrangement the simplest and most economical, and I am thus enabled to introduce the heat at right angles with the travel of the fruit, and at any point.

In order to elevate and support the trays of fruit after they are introduced, I have employed a combination of movable and stationary standards upon two opposite sides of the chamber, and these standards are provided with spring-catches, which can be forced
52 inwards to allow a tray to pass up, but will return to their place after it passes and prevent its going down.

Four stationary standards, *K K*, are set into the sides of the chamber, and extend vertically from top to bottom near the corners. The other four, *L L*, can be moved up and down in slots, and stand by the side of the standards *K*. Each set of standards is provided with spring-catches or supports which are formed as shown
t. E at *n* and *n'*, so that a tray moving upward will depress them into the posts, but they will spring out after it passes.

The operation will then be as follows: A tray full of fruit being
this introduced through the lower door *t* will rest upon four pins projecting from the movable standards or posts. These posts then
ery being elevated, by means hereafter described, the tray will be carried up until it passes the first set of catches *n*, upon the posts *K*.
The posts *L* are then allowed to descend, and will leave the tray
resting upon these catches. As the posts *L* descend, four similar
catches, *n'*, upon them will be depressed and pass below the tray; so that when they are again elevated these last catches will lift the
tray above the next set upon the stationary posts, and, in this manner, the trays are gradually moved from the bottom to the top of
the chamber, where they are removed by the door *s*. Catches which would fall out by gravitation might be substituted for the springs, in some cases. The movable posts *L* may be elevated and depressed in many ways, as by cams, eccentrics, &c., but in the present case I have employed a central roller, *O*, with a crank at one end. Upon
this roller cords or chains *P* are coiled, and their opposite ends, after passing over friction rollers *Q, Q*, are secured to the lower ends
of the posts *L*. By turning the crank, the chains will be
53 coiled upon the roller *o*, and the posts lifted, simultaneously.

If necessary, spiral or other springs *r* may be employed to cause the posts to descend, but in the full-sized machine the weight will be sufficient.

Having thus described my invention, what I claim as new, and

desire to secure by Letters Patent, is—

First. The flues C passing around the drying chamber as shown, being enclosed at E, H, J and having openings I, *m* leading into the drying chamber from the cases, substantially as and for the purpose herein described.

Second. The device consisting of the stationary posts K and the vertically moving posts L, provided with the spring or other catches *n, n*, together with means for moving the posts L for the purpose of elevating the trays substantially as herein described.

In witness whereof, I hereunto set my hand and seal.

Witnesses: JOHN W. CASSIDY. (L. S.)

1. GEO. H. STRONG,

2. JNO. L. BOONE.

(Endorsed :) U. S. Patent Office Mar. 8, 1875.

M. E. C. Mar. 16, 1875.

Examiner's Room No. 100. U. S. Patent Office.
Washington, D. C., Mar. 16, 1875.

JOHN W. CASSIDY,
Care A. H. & R. K. EVANS, | 'Drying Apparatus.'
Washington, D. C. | Mar. 8, 1875.

The operation described on last half of page 5 of spec'n is very imperfectly illustrated in the drawing. The door s, page 6, is lacking.

54. The claims are not in the preferred form, fruit-dryers being old, applicant's invention, if he has made any, must consist in some novel feature or combination of features, *in* a fruit dryer, and this, it is suggested, is what should be claimed.

For the first claim reference is made to *Dryers*, A. Mackey, 137,459, Apr. 1, 1873; Harrison & Savery, 156,849 Nov. 17, 1874; *Fruit Dryers*; Mayhew, 94,967, Sept. 21, 1869; *Grain Dryers*; Eaton, 115,833, June 13, 1871.

For 2d claim see *Fruit Dryers*, M. P. Smith, 107,417, Sept. 13, 1870, reissued; J. O. Button, 155,286, Sept. 22, 1874, and A. C. Lewis, 29,390, July 31, 1860.

The application is rejected.

1586

J. A. ASHLEY,
2d Assistant.

W. OSGOOD.

(Endorsed :) 1586, Off. Mar. 16, 1875.

In the matter of John W. Cassidy, Fruit Dryer, filed Mar. 8, '75.

And now comes the said applicant by his att'ys and amends as follows:

Erase the claims and substitute the following:

1. In combination with the drying chamber, the pipes or flues C passing diagonally along the slotted openings I around and outside of the dryer, and provided with coverings E, H, J, substantially as and for the purpose set forth.

2. In combination with a dryer, the stationary posts provided with spring catches *n n* ~~both the latter~~ K, \wedge and the vertically moving posts L, \wedge all provided with the spring catches *n' n'* and suitable mechanism for operating the posts L, substantially as and for the purpose set forth.

JOHN W. CASSIDY,
per A. H. EVANS & CO.

55

To the Com'r of Patents:—

Sir—If the patent be allowed this applicant, we will have an additional figure made, illustrating more clearing the posts K & L as suggested. We have properly lettered the door *s*, and as the Claims are now substituted they will be found, we think free from objection—and not anticipated.

A. H. EVANS & CO.

Att'ys.

(Endorsed) U. S. Patent Office Mar. 18, 1875. U. S. A.

J. W. Cassidy Amendment 126—1586 Room 100 Mar 19, '75. A.

Examiner's Room No. 100. U. S. Patent Office.

Washington, D. C. March 27, 1875.

John W. Cassidy, Care A. H. & R. K. Evans | Drying Apparatus.
Washington D. C. | March 8, 1875.

It is believed that the claims presented in the amendment filed 19th. inst. are free from objection, and that the application may be allowed on receipt of a suitable additional drawing as suggested by the attorneys.

W. OSGOOD. 1586. J. W. ASHLEY, *2d Assistant.*

(Endorsed) 126, 1586, Letter, 27 Mar. '75. 3 Memorandum of
Fee paid at U. S. Patent Office.

Serial No. _____

Inventor: J. W. Cassidy, Patent to be issued to Inventor.

Name of Invention, as allowed; Drying Apparatus.

Date of Payment; May 26th. Fee, 1 Final. Solicitor A. H. Evans & Co.

U. S. A. Patent Office May 26, 1875.

L. L. A. 2-6-75.

DEPARTMENT OF THE INTERIOR.

56 U. S. Patent Office, Washington, D. C. June 2, 1875.

John W. Cassidy, Care A. H. & R. K. Evans.

Please find below a copy of a communication from the Examiner concerning your application for patent for "Drying Apparatus" dated the eighth day of March, 1875.

Very respectfully,

Room 100.

J. M. THACHER, *Commissioner.*

Your case above referred to is adjudged to interfere with the application of Albert J. Rice, for patent for Fruit Dryer, filed April 23, 1875, Alexander & Mason, Washington, D. C. his attorneys,

and the question of priority will be determined in conformity with the rules accompanying this. The preliminary statement demanded by Rule 53 must be sealed up and filed on or before the first Tuesday of July, 1875, with the subject of invention and name of party filing it, indorsed on the envelope.

The subject matter involved in the interference is: the combination of stationary posts provided with spring catches with vertically movable posts carrying drying frames and provided with similar spring catches, and with suitable mechanism for operating the same; as in applicant's second claim.

1586.

J. A. ASHLEY, *2d Assistant*.

W. OSGOOD.

(Endorsed). 1586 Off. June 2, '75.

Washington, D. C. July 1, 1875.

Hon. Comr. of Patents:

Sir:—In the matter of the interference Rice vs. Cassidy for a "Fruit Dryer," we ask that—in view of negotiations pending between the two parties—the time for filing preliminary statements be extended not less than two weeks.

Respectfully,

A. H. EVANS & CO. *Attys. for Cassidy.*
Attys. for Rice, ALEXANDER & MASON.

(Endorsed :) In the U. S. Patent Office. Rice vs. Cassidy. The time for filing preliminary statements in the above entitled case is extended till 20th July, 1875.

M. B. PHILIPP,

Ex. of Interferences.

7 July, 1875.

(Interference.)

F. B. J.

14, 9, '75.

DEPARTMENT OF THE INTERIOR.

U. S. Patent Office, Washington, D. C., Sept. 14, 1875.

John W. Cassidy, Care A. H. & R. K. Evans.

Present: Please find below a copy of a communication from the Examiner concerning your application for Drying Apparatus, dated the eighth day of March, 1875.

Respectfully, &c.,

Commissioner.

Room No. 100.

Your case above referred to is adjudged to interfere with the application Albert J. Rice, Fruit Dryer, filed Apr. 23, 1875, Alexander & Mason, his attys. and Sam'l W. Craven, Dry House, filed Aug. 7, 1875, Chipman Hosmer & Co. his attys., and the question of priority will be determined in conformity with the rules accompanying this. The preliminary statement demanded by rule

53 must be sealed up and filed on or before the third Tuesday of October, 1875, with the subject of invention and name of party filing it, indorsed on the envelope. The subject matter involved in the interference is—the combination of stationary posts provided with spring-catches, with vertically moving posts carrying drying frames and provided with similar spring catches and with suitable mechanism for operating the same, as in applicant's second claim.

1586.

J. H. ASHLEY,
2d Assistant.

W. OSGOOD.

(Endorsed :) 126, 1586. Off. Aug. 14, 1875.

(Interference.)

F. B. J.

20, 9, '75.

DEPARTMENT OF THE INTERIOR.

U. S. Patent Office, Washington, D. C., Sept. 20, 1875.

John W. Cassidy, Care A. H. & R. K. Evans.

Present: Please find below a copy of a communication from the Examiner, concerning your application for Pat. for Drying Apparatus dated the Eighth day of March, 1875.

Respectfully, &c.,

J. M. THACHER,
Commissioner.

Room No. 100.

Your case above referred to is adjudged to interfere with the appl'n of S. W. Craven for Pat. for Dry House, filed Aug. 7, 1875, and the question of priority will be determined in conformity with the rules accompanying this. The preliminary statement demanded by Rule 53 must be sealed up and filed on or before the 19th day of October, 1875, with the subject of invention and the name of the party filing it indorsed on the envelope.

59 The subject matter involved in the interference is: the combination of stationary posts provided with spring catches, with vertically movable posts carrying drying frames and provided with similar spring catches and with suitable mechanism for operating the same; as in applicant's second *claim*.

The interference dated 14th inst. is dissolved by order of the commissioner. Craven's attorneys are Messrs. Chipman Hosmer & Co. of this city.

126, 1586.

W. OSGOOD.

(Endorsed :) 126, 1586. Off. Sept. 20, 1875.

126, 1586, 1875.

No. 172,608.

John W. Cassidy of Petaluma, County of Sonoma, State of California.

Drying Apparatus.

Recd.	March 8, 1875.	
Petition	" " "	
Affidavit	" " "	
Specification	" " "	
Drawing	" " "	
Model	" " "	
Cert. Dep. Cash \$15	" " "	
Add'l Fee Cert. \$20	Jan. 19, 1876.	
" " Cash \$20	May 26, 1875.	
Examined	Dec. 28, 1875.	W. Osgood.
Issue	Dec. 28, '75.	Knight.
Patented	Jan. 25, 1876.	
Circular	Dec. 29, 1875.	

DEWEY & CO, San Francisco, Cal.

A. H. & R. K. EVANS, Present.

1875.

60

Contents.

Application Paper.

- | | |
|-----------------------------|------------------|
| 1. Rejected | 16, Mar., 1875. |
| 2. Amdt. | Mar. 19, '75. |
| 3. Letter | 27, Mar., 1875. |
| 4. Intf. | 2d, June, 1875. |
| 5. Hearing for | Aug. 19, 1875. |
| 6. Intf. | 14, Sept., 1875. |
| Dissolved by order of Comr. | Sept. 16, 1875. |
| 7. Intf. | Sept. 20, 1875. |

Dryer & Dryers.

Title.

UNITED STATES PATENT OFFICE.

John W. Cassidy, of Petaluma, California.

*Improvement in Drying Apparatus.*Specification forming part of Letters Patent No. 172,608, dated
January 25, 1876.

Application filed March 8, 1875.

To all whom it may concern :

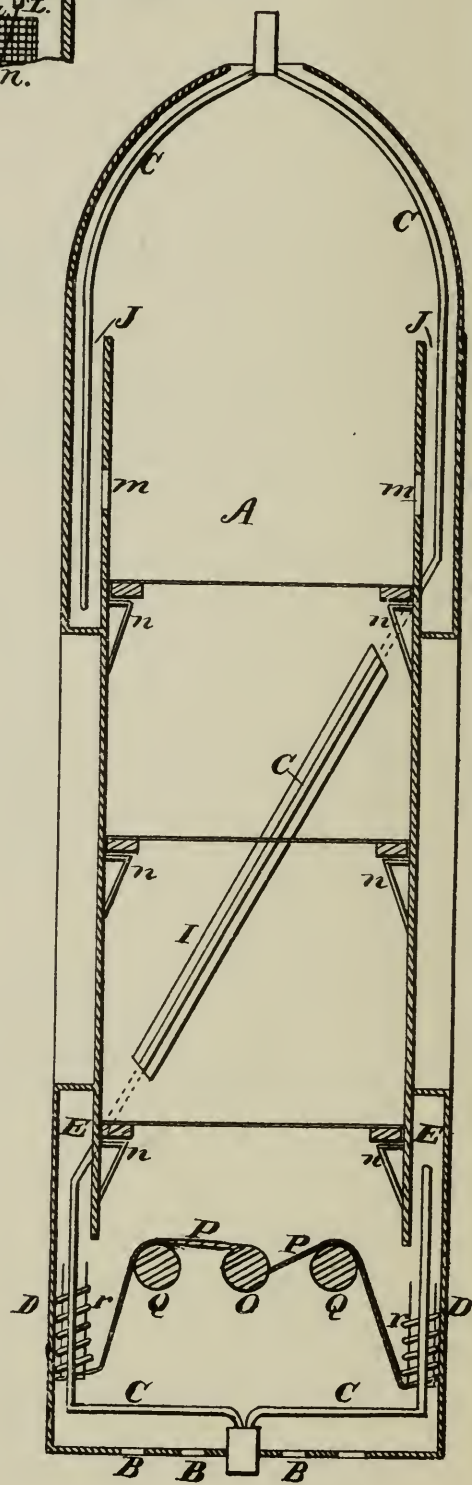
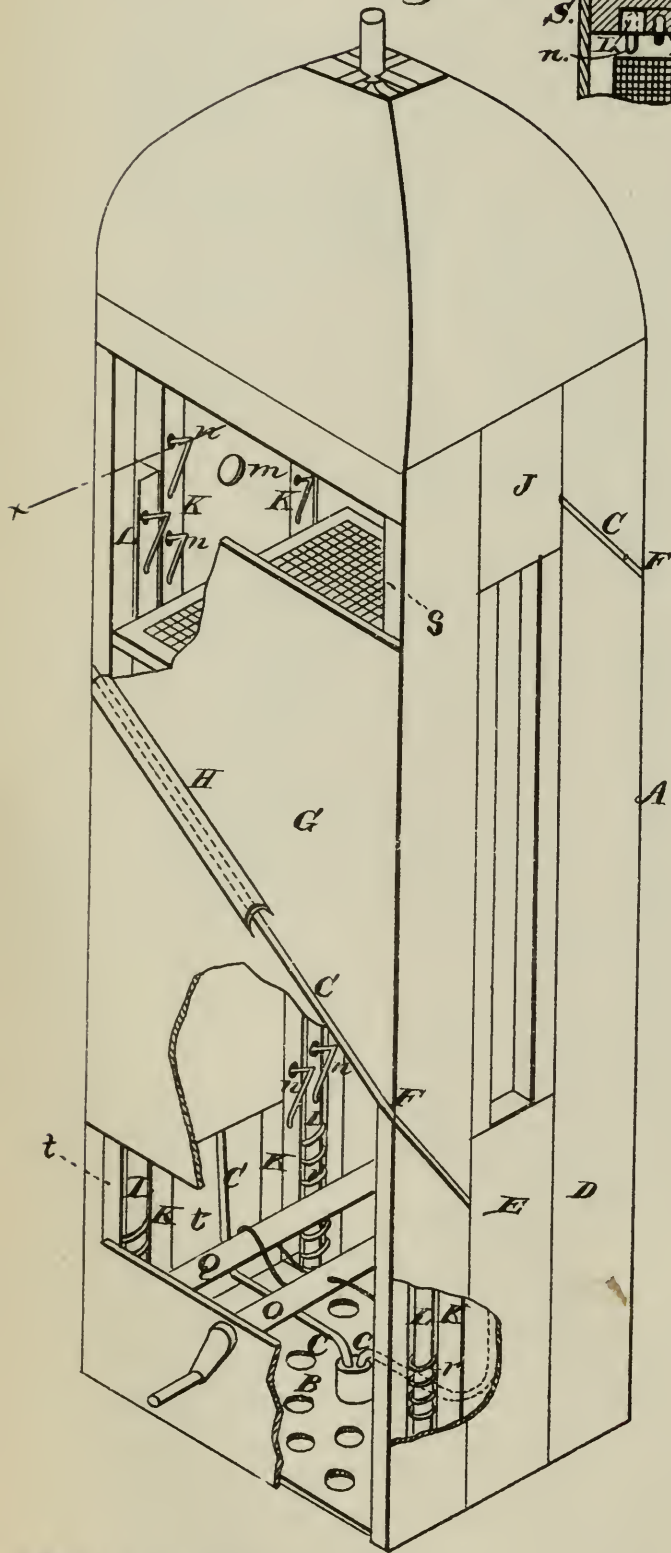
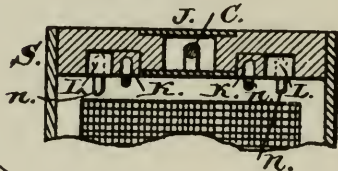
Be it known that I, John W. Cassidy, of Petaluma, Sonoma County, State of California, have invented a Drying Apparatus; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains, to make and use my said invention without further invention or experiment.

My invention relates to an improved device for desiccating fruit and other substances by means of artificial heat; and it consists, first, in a novel method of utilizing the heat which passes through the flues from the furnace, and by leading these flues around the

Fig. 1.

Fig. 3.

Fig. 2.



Witnesses
 Geo. H. Strong
 Jno. L. Boone

Inventor
 John. W. Cassidy
 by Dewey & Co.

chamber within suitable pipes or cases, and making certain openings from these cases into the chamber, I am enabled to admit heated air from any or all sides, and at different heights between the layers of fruit, while heat is also admitted from the bottom of the chamber, or not, as may be desired.

My invention also consists in a novel means of moving the fruit within the chamber, from the time it is admitted until it is again removed.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of my invention, with a portion of the chamber broken away. Fig. 2 is a vertical section in elevation.

A is the chamber of a drier, and it is made of considerable height, so that the fruit can be admitted from below and moved upward to the place of removal from the chamber. The furnace or heater is placed below the chamber, and the heated air is admitted through openings made in the bottom of the chamber, as shown at B, if desired, but the principal part of the heat, the smoke, and gases of combustion are conveyed away from the furnace by means of flues C, which necessarily carry off considerable heat. This heat is ordinarily lost, but I utilize it, and, at the same time, use it at points where it will be of more value than at present, by introducing it at various points around the chamber, and horizontally between the trays. In order to do this I carry the flues C over the bottom plate of the chamber from the center to opposite sides D, where they pass upward a short distance within inclosing-cases, as shown at E, and these cases, opening toward the interior of the chamber, will direct the heat of the flues into it up to the point where they turn, and are carried diagonally across their respective sides E to the corners, as shown at F. From the corner the flues are again carried diagonally across the two remaining fronts G, and in opposite directions. The flues are also inclosed in cases H on these two sides, and slots I are cut from the cases, so as to open into the chamber and admit another portion of the heated air between the layers of fruit at different heights. After crossing the faces G, the flues are again bent so as to cross the sides D diagonally until they reach the center, when they are carried into the vertical cases J which extend to the top of the drier. Openings *m* are made from the cases J, and thus another portion of heat is admitted to the chamber near the top, to finish the operation. From this point the flues may be carried up along the dome to a central discharge opening or chimney.

Various equivalent methods of leading the flues and utilizing their heat may be employed and will readily suggest themselves, but I have found the present arrangement the simplest and most economical, and I am thus enabled to introduce heat at the right angles with the travel of the fruit, and at any point.

In order to elevate and support the trays of fruit after they are introduced, I have employed a combination of movable and stationary standards upon two opposite sides of the chamber, and these standards are provided with spring catches, which can be forced inward to allow a tray to pass up, but will return to their place after it passes and prevent its going down.

Four stationary standards, K K, are set into the sides of the chamber, and extend vertically from top to bottom near the corners. The other four, L L, can be moved up and down in slots, and stand by the side of the standards K. Each set of standards is provided with spring-catches or supports which are formed as shown at n and n' , so that a tray moving upward will depress them into the posts, but they will spring out after it passes.

The operation will then be as follows: A tray full of fruit being introduced through the lower door t will rest upon four pins projecting from the movable standards or posts. These posts being then elevated, by means hereinafter described, the tray will be carried up until it passes the first set of catches n , upon the posts K. The posts L are then allowed to descend, and will leave the tray resting upon these catches. As the posts L descend, four similar catches, n' , upon them will be depressed and pass below the tray, so that when they are again elevated these last catches will lift the tray above the next set upon the stationary posts, and, in this manner, the trays are gradually moved from the bottom to the top of the chamber, where they are removed by the door s . Catches which would fall out by gravitation might be substituted for the springs, in some cases. The movable posts L may be elevated and depressed in many ways, as by cams, eccentrics, &c., but in the present case I have employed a central roller, O, with a crank at one end. Upon this roller cords or chains P are coiled, and their opposite ends, after passing over friction-rollers Q Q, are secured to the lower ends of the posts L. By turning the crank, the chains will be coiled upon the roller o , and the posts lifted, simultaneously. If necessary, spiral or other springs r may be employed to cause the posts to descend, but in the full-sized machine the weight will be sufficient.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a drying-chamber, the pipes or flues C passing diagonally along the slotted openings I, around and outside of the drier, and provided with coverings E H J, substantially as and for the purpose set forth.

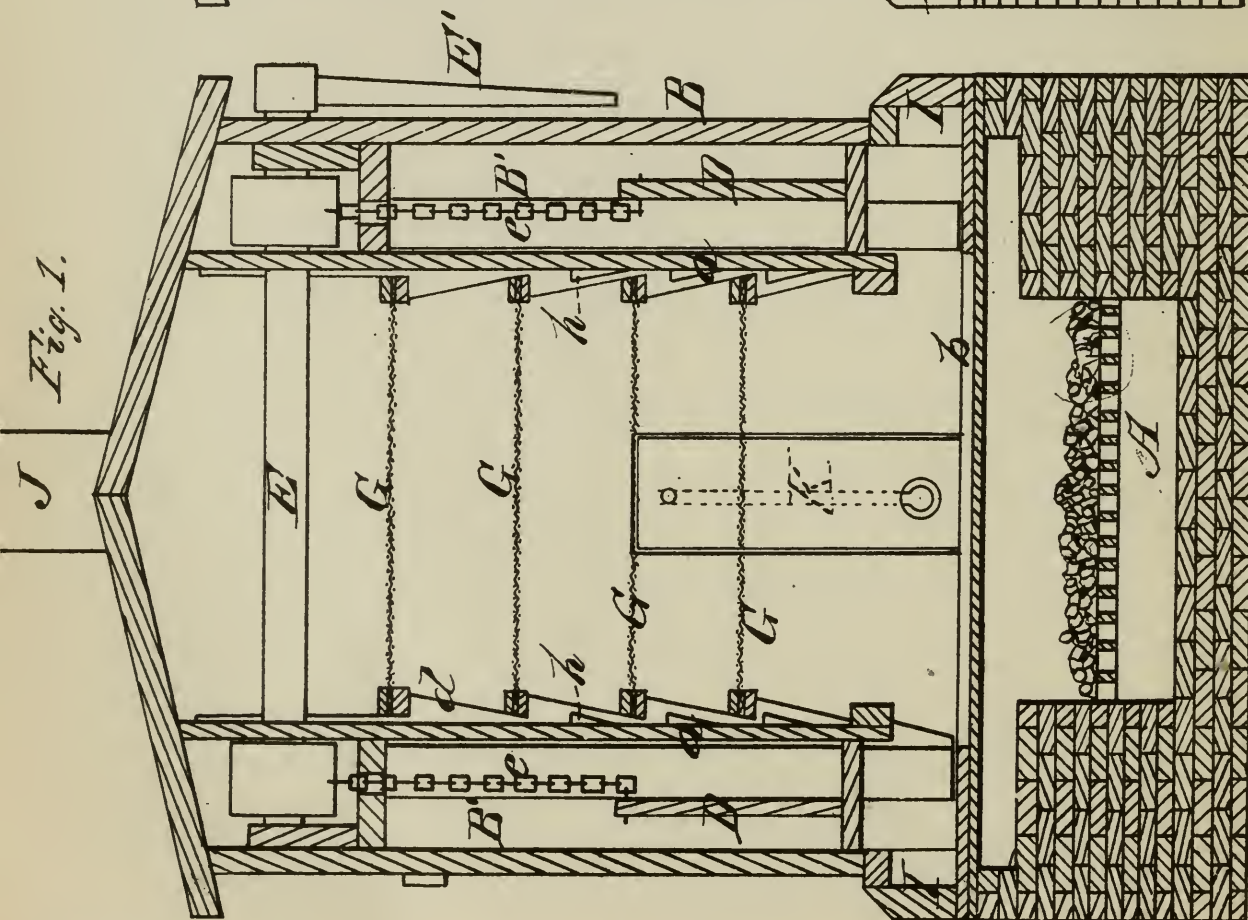
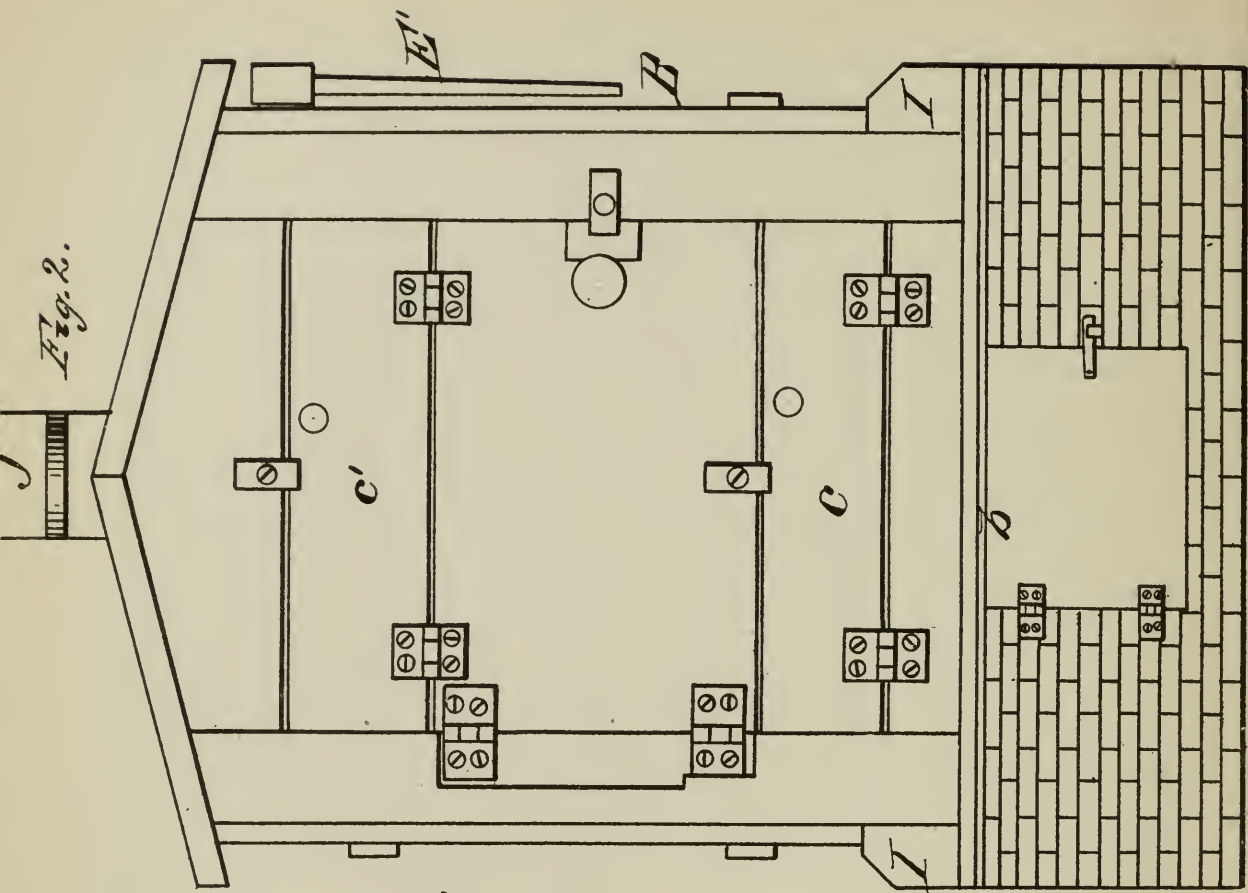
In combination with a drier, the stationary posts K, provided with spring-catches $n n$, and the vertically moving posts L, provided with the spring-catches $n' n'$, and suitable mechanism for operating the posts L, substantially as and for the purpose set forth.

In witness whereof I hereunto set my hand and seal.

DRYING-HOUSE.

No. 179,275.

Patented June 27, 1876



WITNESSES

Eng. W. Johnson.

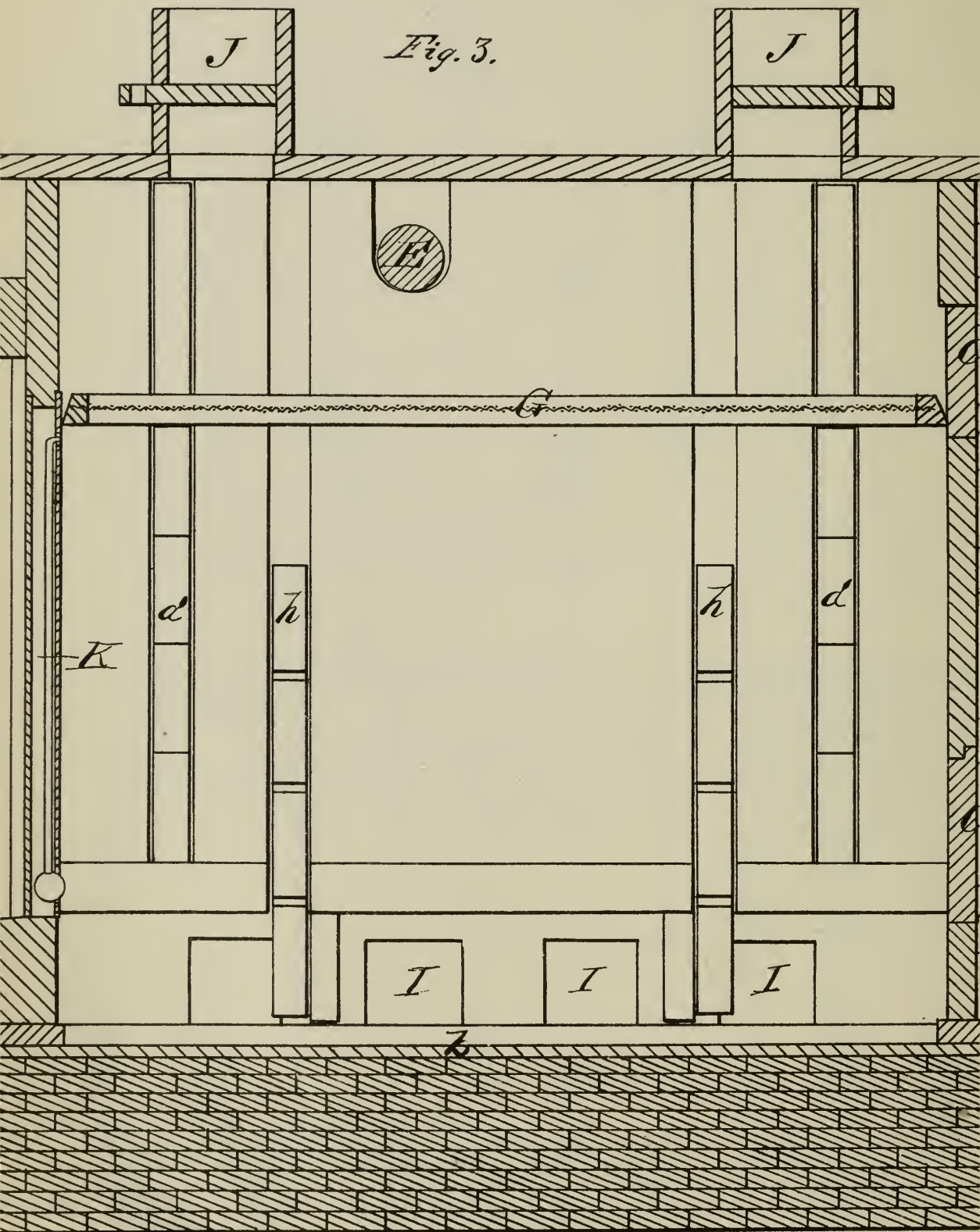
INVENTOR

Samuel W. Graves.

S. W. CRAVEN.
DRYING-HOUSE.

No. 179,275.

Patented June 27, 1877.



WITNESSES

Eugene W. Johnson

INVENTOR

Samuel W. Craven

S. W. CRAVER.
DRYING-HOUSE.

No. 179,275.

Patented June 27, 1876

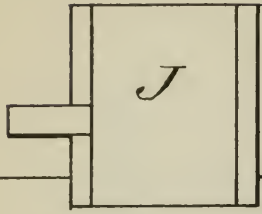
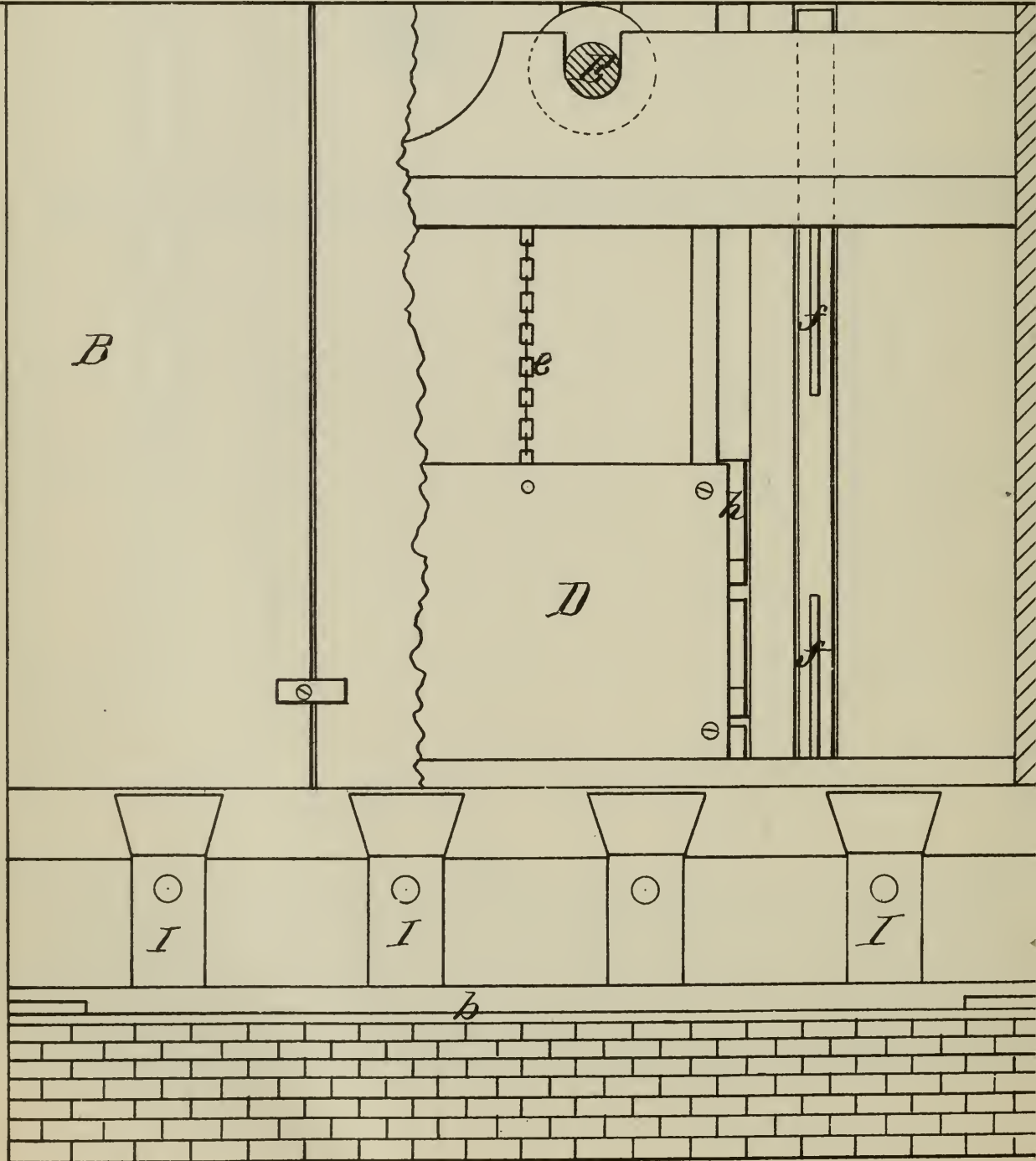
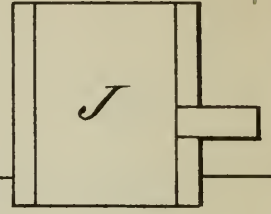


Fig. 4.



WITNESSES

Geo. W. Johnson

INVENTOR

Samuel W. Craver

S. W. CRAVEN.
DRYING-HOUSE.

No. 179,275.

Patented June 27, 1876.

Fig. 5.

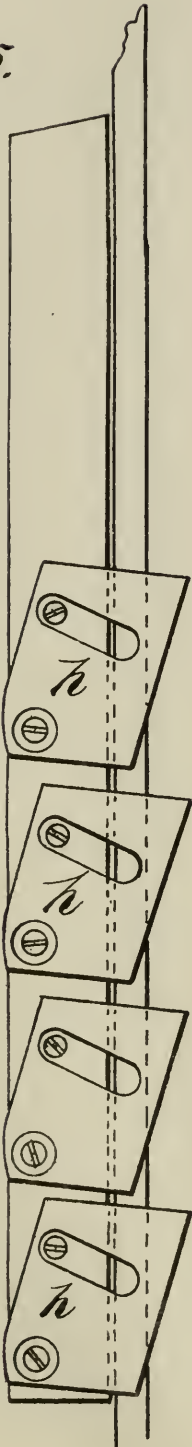
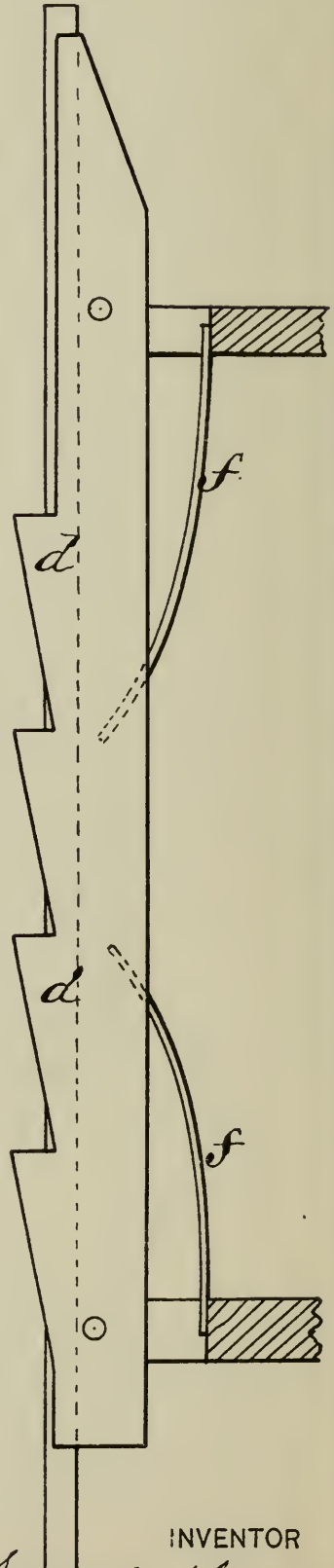


Fig. 6.



WITNESSES

Samuel W. Craven

INVENTOR

Samuel W. Craven.

[SEAL.]

JOHN W. CASSIDY.

Witnesses:

GEO. H. STRONG,

JNO. L. BOONE.

61 MR. WHEATON. I will introduce in evidence a copy of the specifications and drawings of the patent issued to Mr. Craven who is named as one of the interfering parties in the record just read.

(Following is a copy of the specifications and drawings of said patent:

UNITED STATES PATENT OFFICE,
Samuel W. Craven, of Cobden, Illinois.

Improvement in Drying House.

Specifications forming part of Letters Patent No. 179,275 dated
June 27, 1876.

Application filed August 7, 1875.

To all whom it may concern.

Be it known that I, Samuel W. Craven, of Cobden, in the county of Union and State of Illinois, have invented a new and valuable Improvement in Dry-Houses; and I do hereby declare that the following is a full, clear and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a transverse vertical section of my dry-house, and Fig. 2 is a front view of the same. Fig. 3 is a longitudinal vertical sectional view thereof; and Fig. 4 is a side view, part sectional. Figs. 5 and 6 are detail views.

My invention relates to dry-houses particularly for drying fruit; and it consists in the construction and novel arrangement of the dry-house, provided with sliding frames, employed, in connection with yielding sliding rack or latch bars, for raising the trays, springs, and pivoted gravitating-latches, for supporting the trays, all as hereinafter more fully set forth.

In the accompanying drawing, A represents a furnace, of any suitable construction, upon which the dry-house B is erected. In the front of this house is a bottom door, C, and top door, C', as shown; and near each side is a vertical partition, *a*, extending from the top to near the bottom *b*, said bottom being made of sheet metal, and separating the dry-house from the furnace.

By means of the partitions *a* there is thus formed a chamber, B'; along each side of the dry-house, in which is a sliding frame, D, which frames are suspended by chains *e e* from a shaft E passing through the upper part of the dry-house, and having a crank or handle, E', at one end, for turning the same. To each frame D are connected two upright latch bars, *d d*, which are held outward

through slots in the partitions *a a* by means of springs *f f*. In these partitions are also arranged vertical series of gravitating-latches *h h*, which are pivoted at their lower ends, and their upper ends fall by their own gravity inward into the drying-chamber.

The frames *D D* being lowered, the latches *d* and *h* correspond—that is, they are on horizontal lines with each other. The lower front door *C* being opened, one tray, *G*, may be inserted, and supported upon the lower sets of latches, *d h*, two of each kind on each side.

By means of the windlass *E E'* the frames *D* and latch bars *d* are raised vertically, lifting the tray *G* over the next set of gravitating-latches *h*, which fold backward to allow the tray to pass; and as soon as the tray has passed them, they fall inward again of their own gravity to support the tray. The frames *D* then fall again, the latch bars *d* yielding to pass the tray. A second tray is then put in on the first set of latch bars; and then the two elevated in the same manner as described for the first, and so on till the fruit on the first tray is thoroughly dried, when said tray is removed through the upper front door *C'*.

Along each side of the dry-house is a series of ventilating-slides, *I I*, one or more of which may be opened to admit the required quantity of cold air to regulate the temperature. *J J* are chimneys, through which the vapors escape. *K* is a thermometer in the side of the dry house, to show the state of the temperature therein.

What I claim as new, and desire to secure by letters patent, is—

The combination, with the frames *D*, of the latch-bars *d*, springs *f*, and the pivoted gravitating latches *h*, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

Witnesses:

SAMUEL W. CRAVEN.

L. T. LINNELL,

C. T. PIERCE.

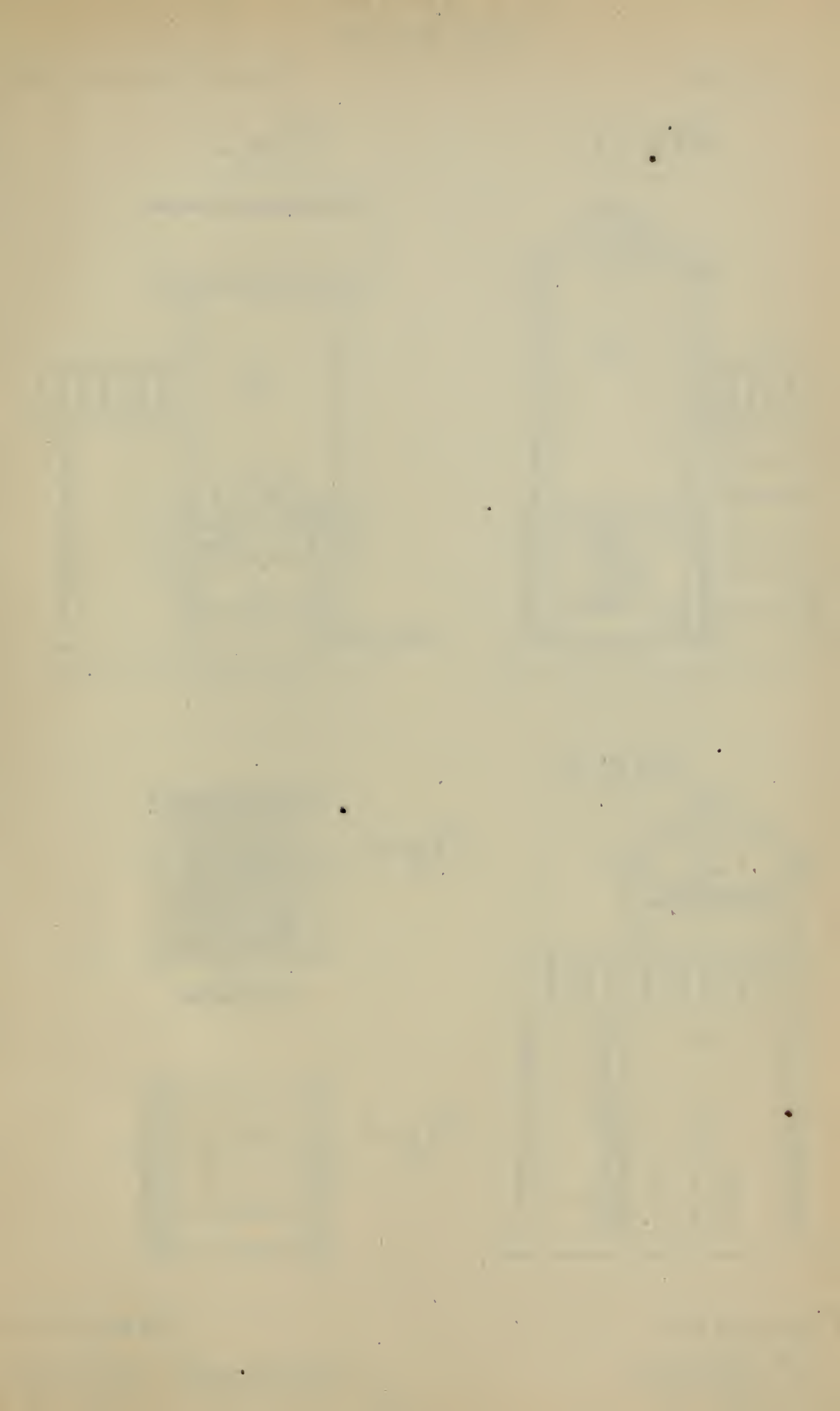
62 MR. MILLER. We object to that patent. It is subsequent to the date of our patent.

MR. WHEATON. This is offered for the purpose of showing that in the decision of the patent office whatever it was on that interference, the spring catches were awarded to Mr. Cassidy, while the catches without springs were awarded to Mr. Craven, and the patent was granted to him, having the claim which included those in the patent.

THE COURT. I do not think the judgment of the patent office can be proven in that way. The objection is sustained.

Third Exception.

To which ruling of the Court, counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.



J. O. BUTTON.
Fruit-Driers.

No. 155,286.

Patented Sept. 22, 1874.

Fig. 6.

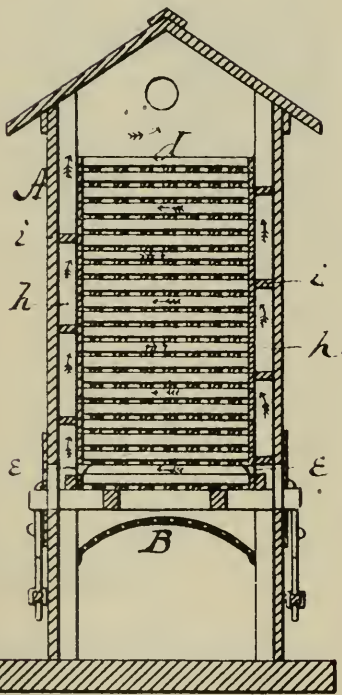
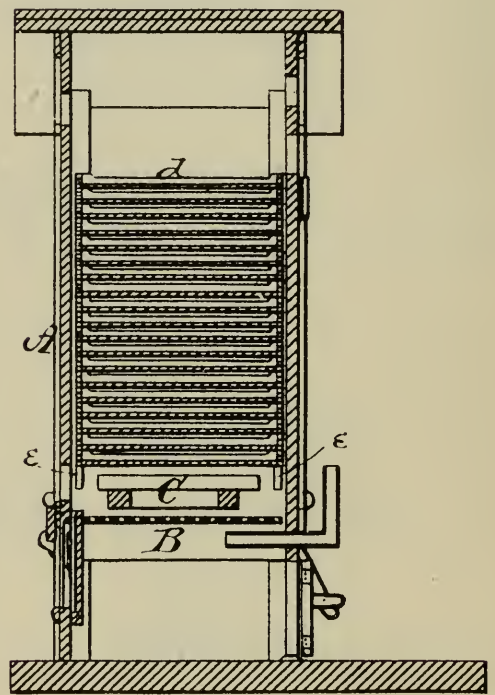


Fig. 7.



Witnesses;
P. Himes,

Inventor,
J. Orlando Button

MR. KIERCE. For the purpose of getting around any objections that may hereafter be urged, that we did not have any stipulation as to the use of these ordinary patent office copies we put in this stipulation.

MR. MILLER. I do not object on that ground.

The stipulation here offered was introduced in evidence, and the following is a copy thereof:—

“ It is hereby stipulated and agreed, by and between the respective parties hereto, that either party may introduce in evidence on the trial of said cause, in lieu of the originals of the United States Letters Patents, or certified copies thereof, such patent office copies of the specifications and drawings of such patents as they may desire with the same force and effect as the original patents, or certified copies thereof would have and that the dates of the granting of said Letters Patent as therein contained shall be accepted as true.

“ It is further stipulated that the defendant is a corporation as alleged in the Declaration herein filed.

“ Dated, December 2nd, 1891.

“ LANGHORNE & MILLER,

“ *Attorneys for Plaintiff.*

“ WHEATON, KALLOCH AND KIERCE,

“ *Attorneys for Defendant.*”

(Defendant here offered in evidence, a copy of United States Letters Patent, granted to J. O. Button, September 24th, 1874, numbered 155,286, for a “Fruit Dryer,” of which the following is a copy, and which was read to the Jury.

UNITED STATES PATENT OFFICE.

Joel Orlando Button, of Hopkins, Michigan.

Improvement in Fruit-Driers.

Specification forming part of Letters Patent No. 155,286, dated September 22, 1874.

Application filed July 20, 1874.

To all whom it may concern:

Be it known that I, JOEL ORLANDO BUTTON, of Hopkins, in the county of Allegan and State of Michigan, have invented certain new and useful Improvements in Fruit and Vegetable Driers; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, forming part of this specification, and in which—

Figure 1 is a front view, Fig. 2 a side elevation, and Fig. 3 a rear view, of my drier; Figs. 4 and 5 are horizontal sections, and Figs. 6 and 7 vertical sections, of the same.

A represents the shell of the drier, provided with a suitable hot-air furnace in the bottom, over which is an arch, B, of sheet iron.

This arch is perforated, as shown in Figs. 6 and 7, to mellow the heated air before coming in contact with the fruit nearest to the heater. Above this arch, within the drier, is a frame, C, for raising the racks, the ends of said frame projecting through the sides of the drier, and on the outside thereof provided with a cross-bar, D. To this cross-bar are attached wings E, for closing the openings in the sides of the drier, as the frame C moves up and down. On each side of the drier are pivoted two cam-levers, G G, for raising the frame C, which levers are connected by a rod, *a*, and a handle or bail, *b*, is attached to one lever on each side to insure uniformity in their movement. *d d* represent the racks, which rest upon each other, and are made with openings in their sides to let the heated air pass through them. *e e* are spring-catches—one in each corner—for supporting the racks after they are elevated. These catches move back while a rack is being elevated, and as soon as the rack passes they spring out and support the rack while the frame is lowered for another rack. The racks *d* do not extend to the sides of the drier, but leave a hot-air space, *h*, on two sides thereof, and in these spaces are alternately placed stops *i i*, which compel the heated air to take a zigzag course through the racks from side to side until it reaches the top. Suitable ventilators or registers are provided at top and bottom of the drier, to be adjusted to suit the necessity of the current. The fruit in the racks prevents the heated air from rising directly upward, consequently a current is formed through the racks and up the sides, as described. The radiating heat from the main current is sufficient to dry the intervening racks.

By this arrangement all the properties of the fruit, which would otherwise be lost by evaporation, are retained by the drier, fruit above absorbing that which rises from the green fruit below. The heated air as it leaves the top rack is perfectly dry, and leaves the fruit perfectly natural, except that the water has been taken out.

This drier is simple in construction, durable, and reliable, and not liable to get out of order, and easily operated.

The racks are inserted through a door, H, immediately above the frame C, one by one, and each one separately elevated by the levers G till it is held by the catches *e e*, and the next rack when it is elevated raises the first one, and so on until the racks can be taken out, one by one, at the top through the door I.

In connection with the furnace is a pointer, *x*, operated by the expansion of a rod to indicate the degree of heat.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The spring-catches *e e*, elevating-frame C, cross-head D, and cam-levers G G, in combination, substantially as and for the purpose set forth.

2. The cross-head D, guided in slots in the house or drier, and having the wings E E, in combination, with the cam-levers G G,

L. & F. WHITTLESEY.
FRUIT-DRIER.

No. 171,202.

Patented Dec. 14, 187

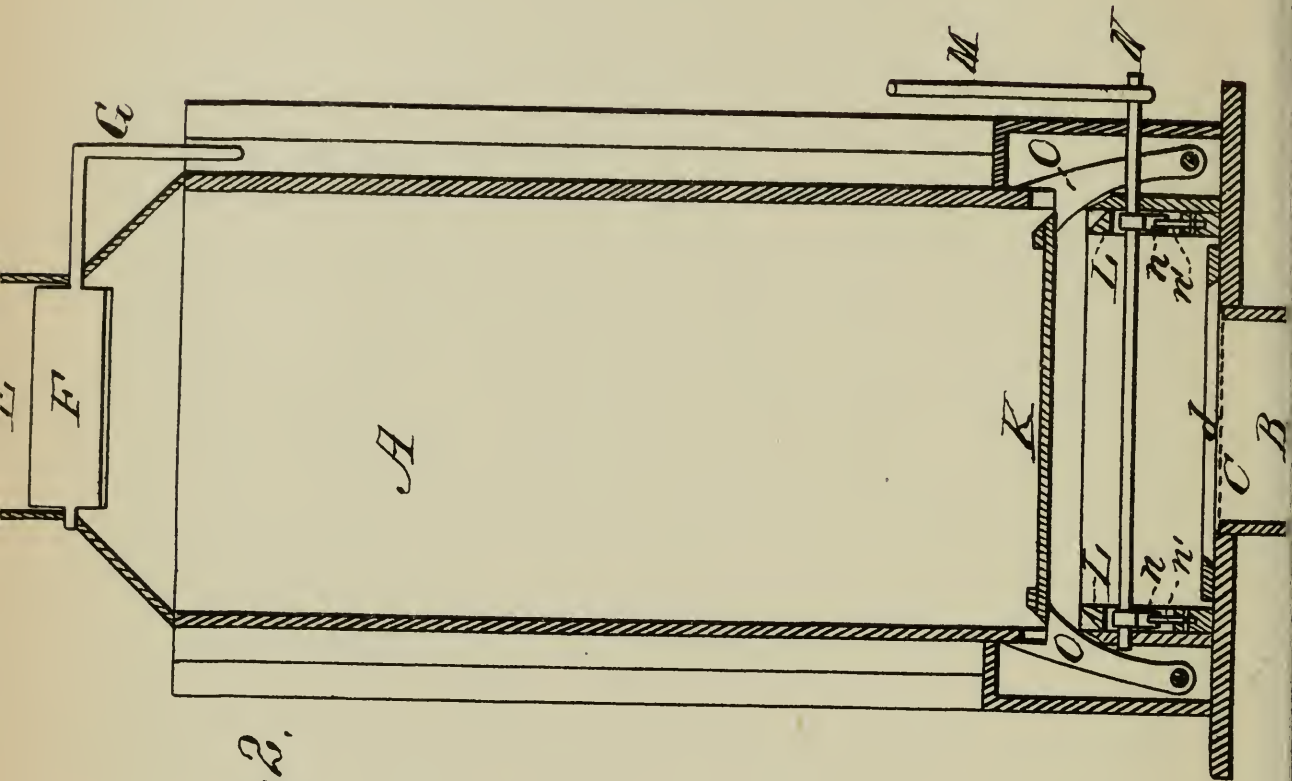


Fig. 2.

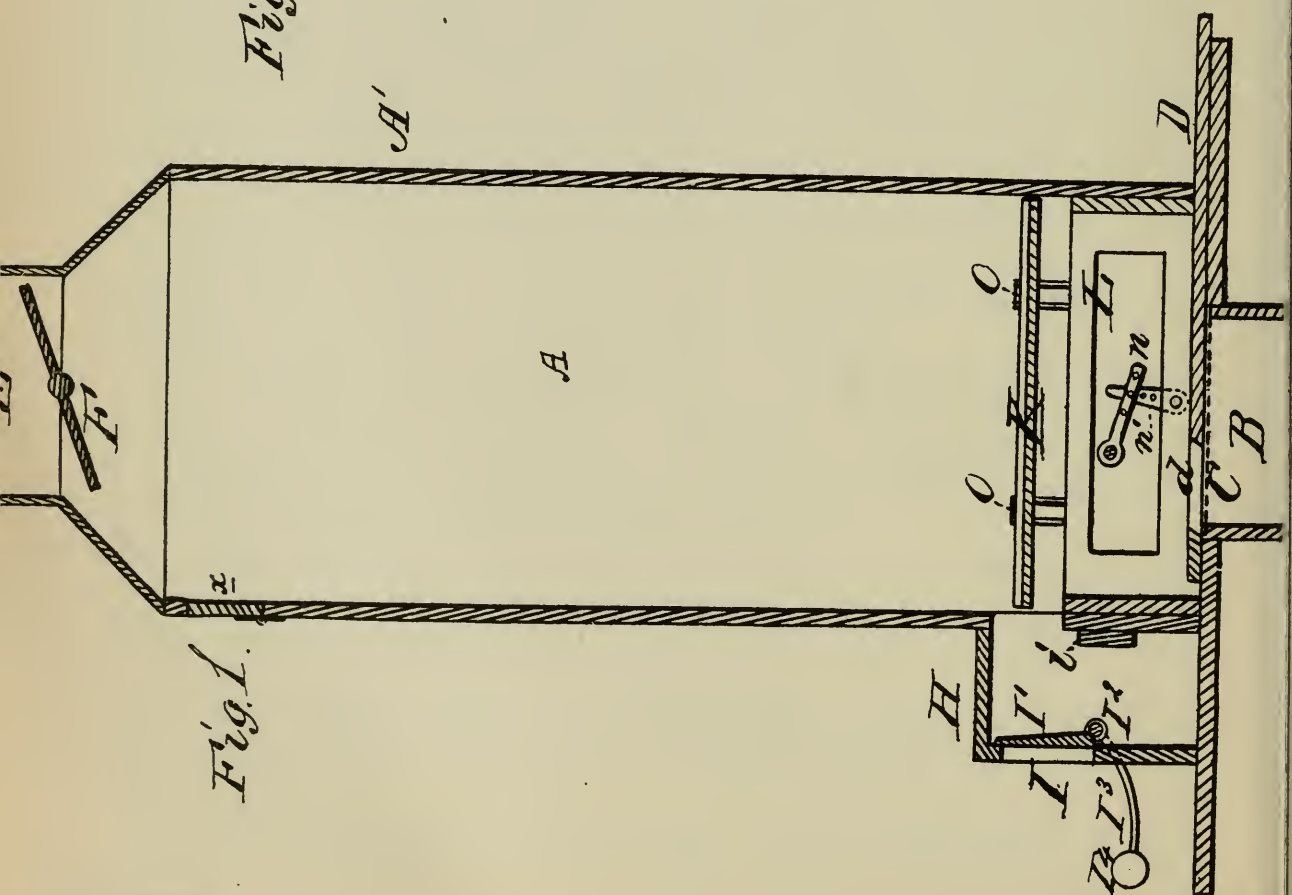


Fig. 1.

WITNESSES

Wm. D. Patton

INVENTORS.

See Whittlesey

FRUIT-DRIER.

No. 171,202.

Patented Dec. 14, 1875.

Fig. 5.

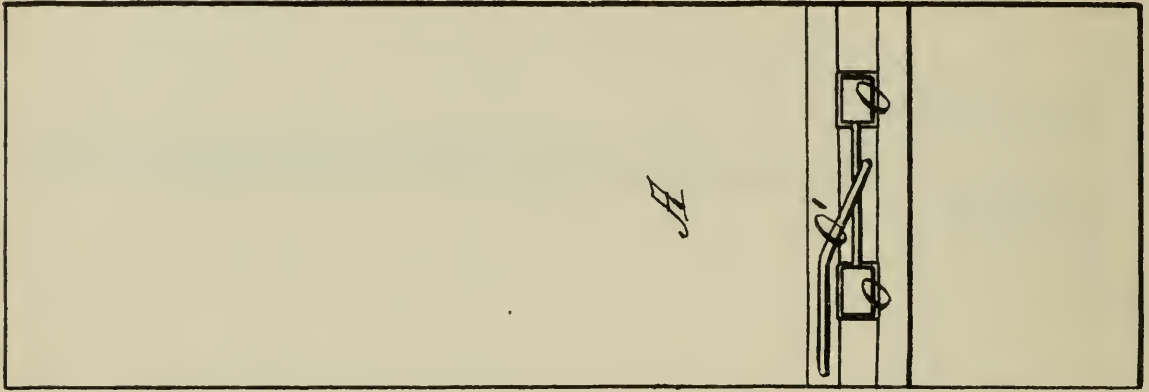


Fig. 4.

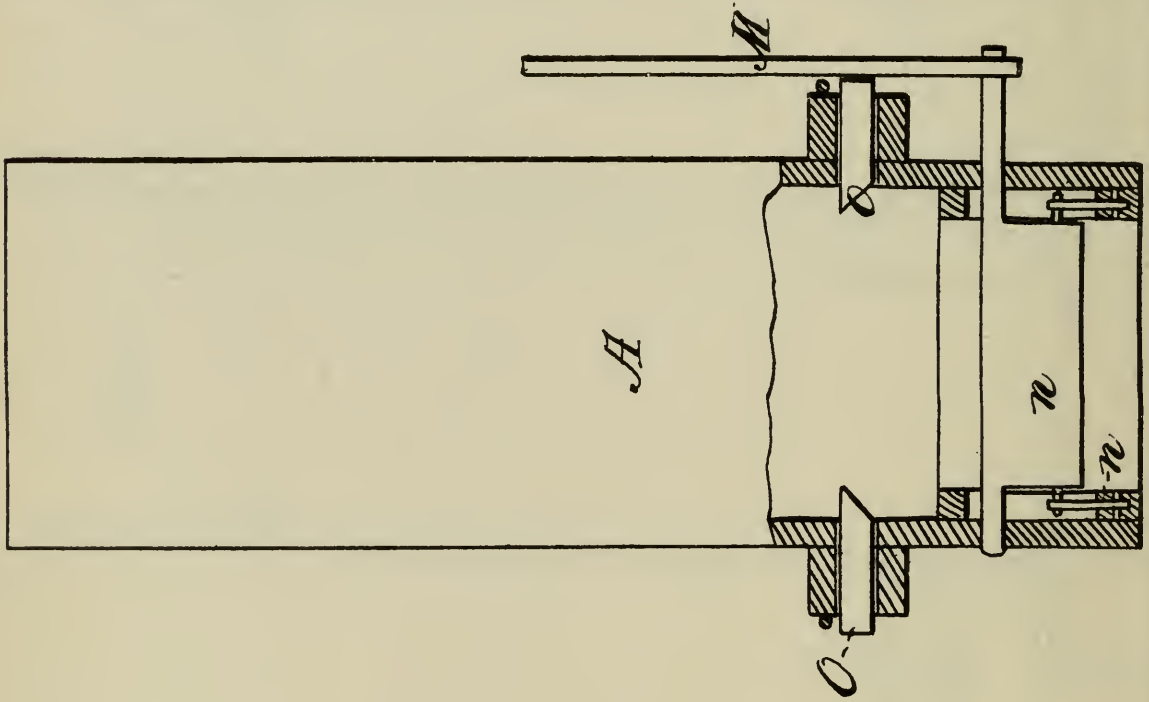


Fig. 3.



WITNESSES

Geo. D. Patten
J. H. Miller

INVENTORS.

See Whittelsey

and bail or handle for operating the latter, substantially as and for the purpose set forth.

In witness that I claim the foregoing I have hereunto set my hand this 16th day of June, 1874.

J. ORLANDO BUTTON.

In presence of—

E. W. PICKETT,
ANN R. PICKETT.

64 (The defendant here offered in evidence Letters Patent of the United States granted to L. & F. Whittlesey, dated December 14th, 1875, for a fruit dryer, numbered 171,202, of which the following is a copy:—

UNITED STATES PATENT OFFICE.

Lee Whittlesey, of Sturgis, Michigan, and Franklin Whittlesey, of Rochester, New York.

Improvement in Fruit Driers.

Specification forming part of Letters Patent No. 171,202, dated December 14, 1875.

Application filed November 11, 1875.

To all whom it may concern :

Be it known that we, LEE WHITTLESEY, of Sturgis, in the county of St. Joseph, and State of Michigan, and FRANKLIN WHITTLESEY, of Rochester, New York, have invented certain new and useful Improvements in Apparatus for Drying Fruits and other similar substances; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to apparatus for the dessication of fruit, grain, offal, glue, or other materials or articles; and consists in a kiln and appliances, constructed and operating, as fully described hereafter, to add trays containing fresh material to the base of a column of perforated trays through which heated air or gas is passed, the trays containing the desiccated material being removed from the top of the column as others are added beneath, the whole constituting a continuous operation.

In the accompanying drawing, Figures 1 and 2 are vertical sections, at right angles to each other, of the improved apparatus; and Figs. 3 and 4 elevations, partly in section; and Fig. 5, a front view, showing a modification.

A', represents a vertical kiln or case, containing the drying-chamber A, which may be square, round, or of any other suitable form, heated air or gases being admitted to the chamber at the bottom through a grated opening, B, provided with a damper, D, and passing out at the top through a flue, E, provided with a damper, F. The material to be dried is deposited on trays K, each of which may

consist of a perforated plate, or of a frame having a perforated slat or net bottom. At the base of the kiln is an extension, H, having an opening, I, to which is adapted a door, I', the latter being hinged at its lower edge, and weighted so as to open inwardly, and close automatically. Within the lower part of the chamber A' slides a frame or carrier, L, which is connected by links n' to arms n on a rock-shaft, N, provided at the outside of the kiln with an operating-arm, M, the edges of the carrier being recessed so that it can be carried upward close to the detents O without moving the latter. The detents may be pawls, falling inward by their own weight, to afford bearings for the trays a short distance above the carrier when the latter is depressed; or, instead of pawls, spring-catches, shown in Figs. 3, 4, and 5, may be used. A tray passed into the opening I depresses the door I', and takes a position upon the top of the carrier L, the door then closing. On the shaft N being turned by its handle the carrier, with its tray, is raised, the latter, by its contact with the inclined edges of the detents O, forcing them back until the tray is in a position above the detents, which will then move inward into the notches in the carrier, and beneath the tray. The carrier is then depressed, leaving the tray resting upon the detents. A second tray, K, is passed through the opening I, like the first, and is placed upon the carrier, which is then raised until the bottom tray is above the detents, when the latter will move inward beneath the trays, supporting both. Additional trays are introduced in the same manner until there is a column of trays in the kiln, and when the upper tray is opposite the door X it is withdrawn through the same. As trays are introduced beneath, others are taken from the top with their contents in a dried condition, the operation being thus rendered continuous, and only ceasing when all the material has been dried.

It will be noticed that as the sides of the frame-carrier are notched, and the same can be raised without contact with the pawls O, the latter remain in their forward position until relieved of the weight of the column of trays, which begins to rise, by the contact of the tray upon the carrier, before the said tray begins to bear upon and move the pawls.

We claim—

1. The combination, with the kiln, of detents O, and a reciprocating carrier, having notches or recesses arranged in respect to said detents, substantially as and for the purpose set forth.

2. The combination of the carrier L, rock-shaft N, having arms connected to the carrier, and operating-arm, as specified.

3. The combination of the kiln, its extension H, opening I, and self-closing door I' hung at the lower edge, and opening inward, substantially as and for the purpose set forth.

4. The trays K, constructed, adapted to, and combined with, the carrier L and detents, as described, so as to bear against the lowest

tray of the column, and raise the latter before moving the detents, for the purpose set forth.

In testimony that we claim the foregoing as our own, we herewith affix our signatures in presence of two witnesses.

LEE WHITTLESEY.

FRANKLIN WHITTLESEY.

Witnesses :

J. H. BOSTWICK,

FRED. C. BOSTWICK.

65 MR. MILLER. That patent is dated December 14th, 1875.

Cassidy's application was filed March 8th, 1875, so that our application had been on file over eight months, at the time that this patent was granted, and therefore it cannot tend to illustrate our invention, because on the face of it our invention is ahead of his. Our invention dated from the date of its application and the file wrapper which they have offered in evidence shows the date of our application. It is not an anticipation of the patent. It was not prior to our invention or our application. Our application was long prior to that patent. How it can anticipate us even if it showed us the same thing I cannot see.

THE COURT. I shall sustain the objection.

Fourth Exception.

To which said ruling of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

MR. KIERCE. Does your honor hold we cannot offer this as showing anticipation and state of art?

THE COURT. As anticipation.

MR. KIERCE. We now offer it as showing the state of the art.

MR. MILLER. We object to it on the same ground.

MR. WHEATON. There is no law which authorizes the Commissioner of Patents to issue two patents for the same thing except in those instances in which he declares an interference. The law provides for an interference and provides for it in those cases.

66 THE COURT. I shall sustain the objection.

Fifth Exception.

To which said ruling of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

G. WIGHTMAN, called on behalf of the defendant, was sworn and testified as follows :

MR. WHEATON. Q. Where do you reside?

A. Sebastopol, Sonoma county. I have been a farmer all my life. I am acquainted with the Hunt Brothers. I have been at

work with the Button fruit dryer and have been building that drier for the last fourteen years. I have built several every year. I put up thirty-three driers this last year. I perform all the mechanical labor myself, except laying up the brick work. I hire the furnace made and the wall but the woodwork I do myself. I thoroughly understand the construction and operation of those Button dryers as described in the Button patent which has been read in evidence. I have used them ten years. I had a fruit ranch, and built a drier and used it on the place. I am still building driers. I commenced using them fourteen years ago this last summer.

MR. MILLER. Q. Are you a mechanic?

A. I am a jack of all trades. I do most anything. I never served a regular term as a mechanic. I am pretty handy at tools. I personally built all the wood work of the drier. I have read the Button patent.

Q. When did you last read it?

67 A. I sent on and got a copy of the patent in 1878. At that time I read that.

MR. WHEATON. Please explain the construction of that Button drier as described in that patent, so that the Jury will understand it.

A. I have my model here, probably I can explain it by that better.

MR. MILLER. Q. Can you explain the Button patent without a model?

A. I think I can.

Q. Then why do you not do it?

A. It is easier to explain it by the model than without. You can show the workings of it, and it does not take half as much talking to explain it with the model as it does without.

MR. WHEATON. Q. Now answer the question.

A. The model is an old one which has been made for a good many years. These represent the trays (illustrating.) The Fruit is slid in on those slides, and by taking this so it takes it up above these catches. There are catches in the post here, and here and also in the back post, with the springs on the back side. The trays pass up. It presses the spring back. As soon as the tray gets above the catch the spring comes out, then you let it back again, and it is ready to put in another tray.

It keeps working so until you get it full. There are doors here, so that you can see the fruit all the way up. You can see how your fruit is drying. When the fruit is at the top you can tell it is ready to come out. This is calculated to set on a brick wall, the same as that patent is. I believe that is all the explanation there is about it. The patent calls for throwing the heat backwards and forwards between the trays. I have never used that because I did not think it practicable.

68 A JUROR. Q. Was it intended that those trays should fit on each other?

A. Yes sir, those are three and a half inches wide. They are resting upon each other.

MR. MILLER. Q. They made then, one stack of trays, one on top of the other?

A. Yes sir. And lifted the whole column up at once, the trays slide in on this frame here, and then there is a cross piece here.

A JUROR. Q. Is that the only set of catches that is inside?

A. Yes sir. Afterwards they are carried up by the weight and set one on top of another.

MR. WHEATON. Q. Are you acquainted with the plaintiff, Mr. Cassidy?

A. Yes sir. I live about 16 miles from where he does. I have been acquainted with him for 14 years. I am not acquainted with the first driers he has built, I only know the drier he is using, I saw his large model in Petaluma. That is the only one I ever saw. I have had some talk with him with regard to the drier made by him and the driers made by me. That was 11 years ago at Petaluma. It is 14 years since I have been making the drier. I think he knew of my building the Button drier ever since I saw him at the Fair, with the model, or shortly after that. It was not a great while after that. He never brought any suits against me for infringing his patent, and never threatened anything against me.

Q. How many trays did you get in a stack in each one of the Button driers as you have built them?

A. I put 13 trays in a stack. They are two feet 8 inches square. There is a trifle difference. The sides are an inch and a quarter wide. The ends of the trays are three inches and a quarter.

Q. Does that leave a vacant space between the side boards of the trays, one of which sets on top of the other.

69 A. Yes, sir, on the side. The object of the patentee was, as I said before, to force the air backwards and forwards through the fruit. But in testing and working it, I thought it was not practicable and shut it off. In the Button drier I calculated to carry the trays of dried fruit clear to the top of the drier. The door through which I took out the trays was near the top. Where this tray is taken out, the plate of the drier is four inches, and the door is made on to that plate. After the top tray is taken out, you put in a tray below and elevate it. You can open the door along anywhere and take it out anywhere. If it gets dry before you get to the top door, you can take it out and put in another tray and elevate it. You cannot take out a tray part way between the top and bottom when they rest on top of one another. You would have to wait until you got to the top. I have seen the defendant's drier.

My recollection is that the devices in the bottom of that drier is similar to the Button. I am not positive about that. I have seen the Alden drier.

Cross Examination.

MR. MILLER. Q. How many Button driers did you ever build?

A. I could not swear positively; I can get pretty near to it. What I call a drier, one has three stacks, and one has two. Last year I put up 33 stacks. The year before I put up 18. I built some every year since I have been here. The stacks were 6 feet from the top of the wall, that is to the eave of the drier. From where the tray goes in at the bottom to where it is taken out at the top is 6 feet. The stacks were just wide enough so that the two foot 8 inch tray would slip in between the posts here. We
70 put in 18 trays to a stack. The weight of one of the trays when filled with fruit depends on the kind. Peaches weigh about 20 pounds. Prunes which are the heaviest weigh from 20 to 25 pounds owing to how close you pack them.

Q. Why did you not build these stacks high, and make the trays large to put more fruit in?

A. I experimented on that. I built a two story building, and run the drier and put in 33 trays, and when I came to use the drier after I got a certain height, the fruit would be dry and ready to come out, and when it got to the top, it would not be as dry as when it was here a certain distance. We did not lift the trays up so as to get them out of the hot air, because we wanted them dry. We put the trays in on the hot air to have them dry. With so much steam from the fruit below, it would not dry off. We found it impracticable to build them any higher than 6 feet, All the ones we have built since have been six feet high.

Q. Supposing you had a stack filled with fruit, all dry and ready to be taken out, how would you proceed to take it out?

A. I commence at the top, take it out down to this door open this door and take it out to the next door and so on. We have to have a series of doors from the top down to the bottom. In the Cassidy dryer you do not, in that you can take a tray out anywhere. We cannot do that in ours, because the trays lay one on top of the other. In that respect the Button drier is different from the Cassidy drier, because the trays rest on one another. When I am using the Button drier, and get a stack full, and take out one tray at the top, I put in a fresh one at the bottom.

Q. Supposing you have dried all of your fruit, and did not want to insert any more below, what do you do then?

71 A. I would commence at the top take it out, open the next door, and take out the next and so on, down.

Q. Do you find anything like that described in the Button patent, having a system of doors, all the way down, on the side, to be opened and taken out?

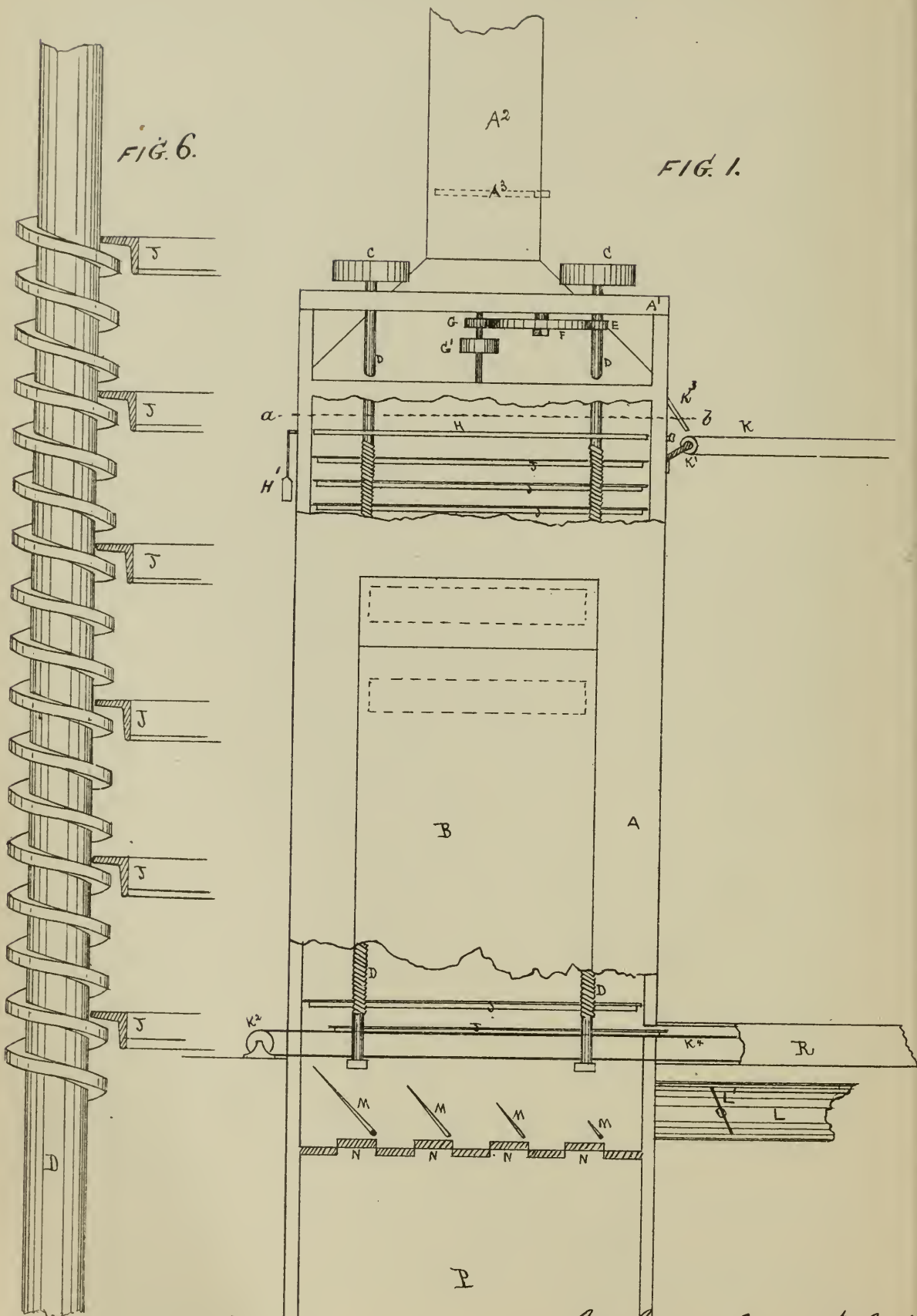
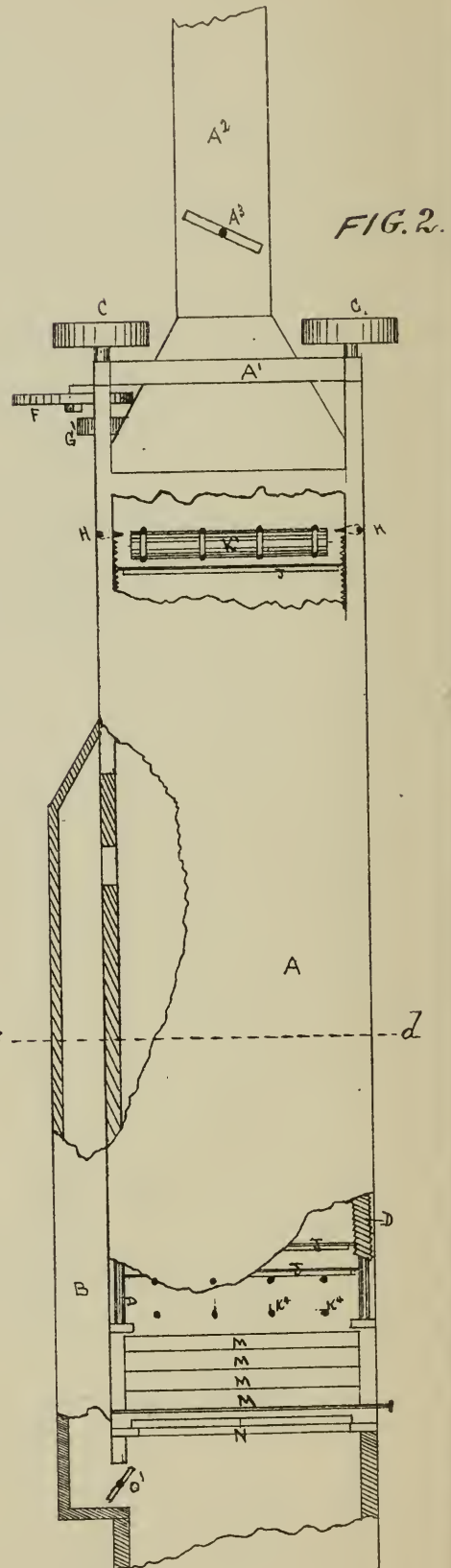
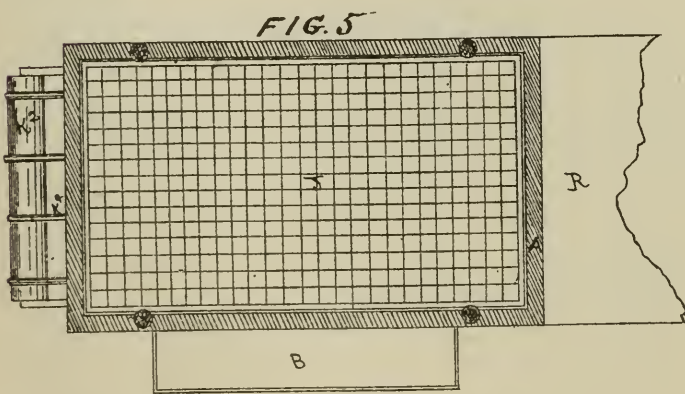
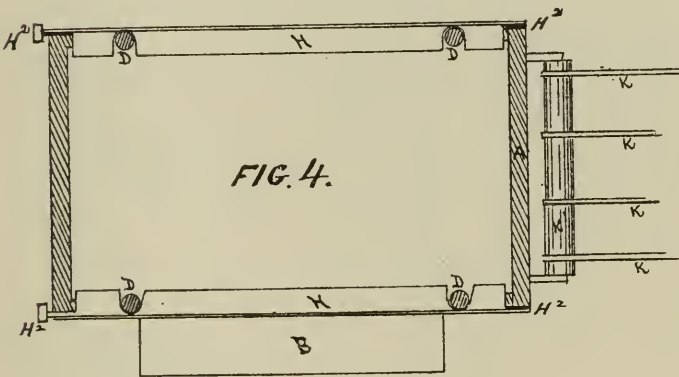
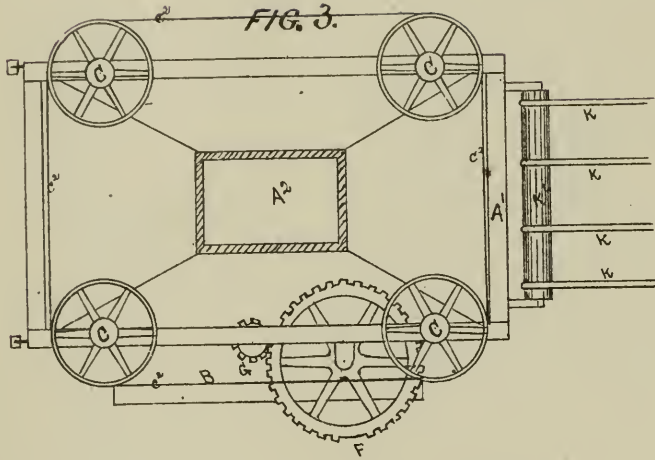


FIG. 6.

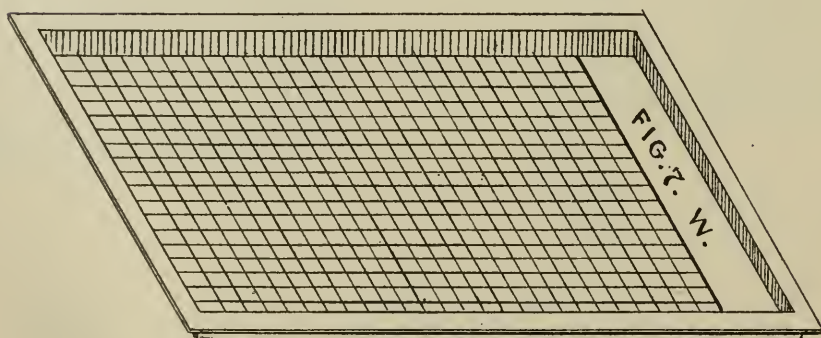
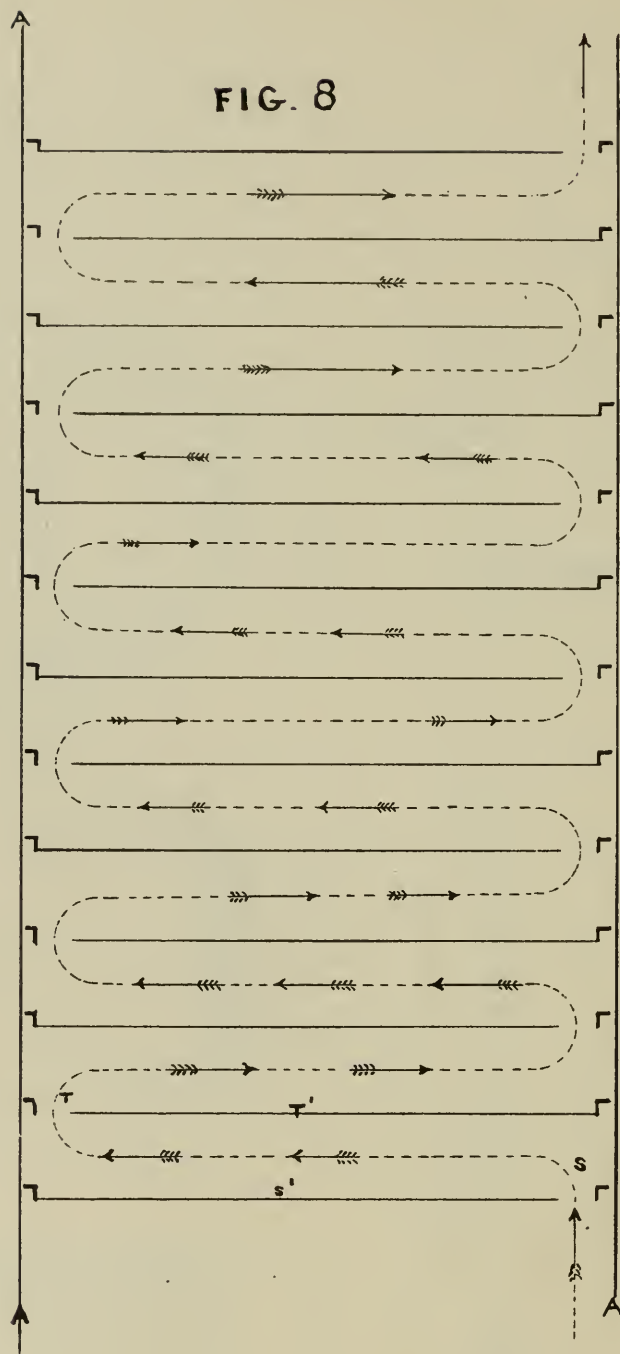
FIG. 1.

witnesses

Marshall Smith



Marshall Smith



witness

Edw. J. ...

A. No sir, that is not in the patent, but I added that.

Q. That was your own idea?

A. Yes sir.

(By consent of counsel, it is stipulated and agreed that Juror Boardman shall be excused from serving on the Jury any further during this trial in consequence of the illness of his daughter, and that the trial shall proceed with 10 jurors.)

MR. MILLER. Q. Taking the Button patent as Mr. Button has described it himself, and supposing that the stack is filled with fruit, and is all dry, and you want to take it out, how would you proceed to do it according to the patent?

A. I would take out the top tray, empty it, slide in an empty tray at the bottom, slide it back, elevate it up in the same way, keep changing in that way. For every filled tray that you take from the top, you would put in an empty tray down at the bottom. I would not have to do that in this Cassidy patent. I can take out trays at any place you want to take it out, you can do so, in the way that is constructed.

(The model of the Button drier was here put in evidence and marked defendant's Exhibit No. 3.)

Defendant here introduced in evidence and read to the jury United States Letters Patent No. 107,417, granted to M. P. Smith for a drier, and dated September 13th, 1870, marked 72 defendant's Exhibit No. 4, of which the following is a copy—

UNITED STATES PATENT OFFICE.

Marshall P. Smith, of Baltimore, Maryland.

Improvement in Driers.

Specification forming part of Letters Patent No. 107,417, dated September 13, 1870.

I, Marshall P. Smith, of Baltimore, in the county of Baltimore and State of Maryland, have invented a new and Improved Drier; of which the following is a specification:

The first part of my invention consists of a vertical chamber or tower, in the interior of which are four vertical screws the threads of which form supports for a series of trays, which receive a rising or falling motion by the revolution of the vertical screws. The trays are made to fit the chamber as closely as possible and yet allow free motion, so that the heated air, which is introduced at the lower end of the chamber, will be caused to pass through all of the trays in succession before escaping from the top of the chamber, being thus brought into contact with all the drying substances and enabled to absorb a very large quantity of the moisture; and this is an important feature of the invention for if the warm air is permitted to escape before it has become saturated, a very great waste of heat and power is incurred. These trays I prefer to make of iron-wire cloth of as large mesh as the substance to be dried will allow; but they may be made of perforated metal or of wood. When the sub-

stance to be dried is of an open or porous nature, or in pieces of such size that the mesh or perforations in the tray can be large, the air will rise freely through the trays; but when the substance is small and lies compact, such as grain, these large open meshes cannot be used; and when liquids are to be evaporated, they must be held in pans through which the air cannot pass. I therefore make my trays with a portion of the bottom at one end removed, as shown in Fig. 7, W, and in placing the trays in the tunnel these spaces are in reversed order, as shown in Fig. 8. The heated air, entering at the bottom, passes up through the space S, over tray S', through space T, over tray T', and so on, as shown by the dotted arrow-line. The frames are made of iron or wood, and whereas the air, after passing through a considerable number of trays, will be reduced in temperature and its absorbing power weakened, a pipe or channel, B, is provided to convey fresh hot air to the upper portion of the chamber to hasten the drying. This channel may be of wood or metal, and may start from the lower chamber, as per drawing, or may branch off from the blast-pipe L.

The second part of my invention relates to the mode of entering and removing the trays by means of a combination of endless chains or ropes, K¹ and K² and vibrating flanges H.

The third part of my invention relates to the mode of introducing and regulating the heated air.

Figure 1 is an elevation of one side of the chamber or tower, cut away in places to exhibit the interior arrangement. Fig. 2 is an elevation of the front of the chamber, also partly cut away for same purpose. Fig. 3 is a view of the top of the chamber, showing the pulleys and gearing which rotate the screws. Fig. 4 is a section through line *a b*, showing the operation of the vibrating flanges and endless chains. Fig. 5 is a section through line *c d*. Fig. 6 shows the vertical screws in perspective and the trays in section.

Similar letters indicate corresponding parts.

A A is the frame of the chamber or tower, which may be constructed of brick, lumber or other materials. Its size will depend upon the nature of the substance to be dried, and its height should be much greater than its diameter. It should be placed in a building of three or four stories in height, to allow of easy access to the upper and lower ends, and it will be found most economical to make it twenty-five to fifty feet high and four to eight feet in diameter. A chimney, A², with a damper, A³, is provided to increase and regulate the draft.

The lower portion of the chamber, from the ends of the screws downwards, should be placed in the cellar of the building, and in the space marked P, Fig. 1, a furnace, such as is used for heating dwellings is placed, cold air being admitted through the opening O².

Above the furnace are valves or dampers N N, which, when fully

open give free escape to the heated air into the chamber above, and by closing regulate the quantity to any degree. L is a pipe entering the chamber above these dampers, having a valve L'.

Through this pipe heated air is forced by a fan into the chamber and, impinging on the deflector M M, is deflected upward. These deflectors are of increasing superficial area, and vibrate on journals at their lower edges, and by adjusting these, the hot air from the fan can be uniformly distributed over the whole chamber.

The hot blast and the furnaces can be used together or separately, as required, and when the blast is not used the deflectors may be dispensed with.

D, D are large vertical screws, having a long pitch and deeply-cut thread, to give sufficient hold to the edges of the trays, as shown in Fig. 6, J J. The lower ends of these screws rest in steps securely fastened to the sides of the chamber and they are also steadied by guides at suitable distances to keep them from swaying. The upper ends of these screws carry pulleys *c c*, around which passes a belt, *c²*, Fig. 3, giving them a simultaneous motion. Gearing may be substituted for these pulleys; but the power required is small, and the belt will do the work. The screws rest in journals fastened to the framing A¹.

The upper part of the thread of the screw D is removed from a point about an inch below the surface of the flanges H to the end in order that the tray may be entered easily and not engage with the thread until the flange is lowered, and the lower end of the screw is also similarly reduced, in order that, when the tray reaches the end of the thread, it may drop or rest upon the carrier K⁴ K² and be withdrawn from the chamber.

On one of the screws is a small pinion, E, engaging in a large spur-wheel, P, which also engages in pinion G on a counter shaft, which receives motion from a pulley, G'.

From the spur-wheel F one or more teeth are removed, so that, whereas the pulley G' and pinion G are in constant motion, the spur-wheel F will revolve only so far as the teeth are continuous, and when the vacant space is reached motion ceases in the vertical screws. By this device the trays can be introduced without accident while the screws are at rest, and by varying the diameter of the spur F, and consequently the number of revolutions which the screws will make before stopping, the distance between the trays may be regulated at pleasure.

The carrier K⁴ K² is formed of ropes or chains and rollers, like the upper one, and may be extended to the packing room or elsewhere through the covered channel R.

K K are endless ropes or chains passing over roller K¹ close to the front of the chamber, and also over similar rollers at convenient distances from the first. These ropes receive continuous motion from pulleys not shown.

H H are flanges or bars vibrating on journals H^2 which project outside of the chamber, and on one end of each flange are weights H^1 , attached at right angles to the face of the flanges, which serve to keep them level until the tray is properly entered and rested upon them.

K^3 is a narrow door, which is raised to allow the tray to enter, and then closed.

In operation, the tray is placed upon the ropes K, which carry it into the chamber and over the flanges H, which are depressed by the weight of the tray, or by moving the weighted levers until the tray rests upon the thread of the vertical screws.

When one tray has been placed in position the spur F is moved by hand or a simple lever (not shown) far enough for the teeth to engage in pinion G' , when the screws at once revolve till F has made one full revolution and stops. Another tray is then introduced, motion communicated a second time, and so on without intermission.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. The arrangement of a series of trays resting in the threads of vertical screws, and receiving a falling or rising motion by the revolution of those screws in a chamber or tower supplied with a current or currents of hot air, substantially in the manner shown and described.

2. The arrangement of a series of trays or platforms receiving motion from the revolutions of vertical screws in a vertical drying-chamber, when so constructed and arranged that the current of air shall pass over each tray in succession, in the manner and for the purpose substantially as described.

3. The vibrating flanges H, when used in combination with the vertical screws, in the manner and for the purpose substantially as described.

4. The carriers K K^1 K^2 K^4 , when used in combination with the vertical screws and flanges, in the manner and for the purposes substantially as described.

5. The vertical screws D, when used in combination with the vertical chamber A, for the purpose of raising or lowering trays, in the manner and for the purpose set forth.

6. The deflectors M M and dampers N N, when constructed in the manner and for the purposes substantially as described.

7. The arrangement of pinions G and G' and spur F, having one or more teeth removed, when used for the purpose of giving intermitting motion to the vertical screws, in the manner substantially as described.

MARSHALL P. SMITH.

Witnesses:

JAMES W. KIRKMAN,

W. G. BOWDOIN.

73 W. C. HUNT, called as a witness on behalf of the defendant, was sworn and testified as follows:—

MR. WHEATON. Q. Where do you reside?

A. Santa Rosa. I am Secretary of the defendant, and also one of the managers. I own a little over a quarter interest in the stock of the corporation defendant.

Q. Have you a model of the dryer that was described in this patent of Marshall P. Smith, just read?

A. Yes sir. I made the model. I am mechanic enough to make it. I understand the construction and mode of operation of the machine described in the specification and drawing of this Smith patent.

Q. Please explain the model to the Jury.

A. I made this model in a hurry. It is worked by placing the tray in at the bottom in the same manner as in the dryer that we are now using at Santa Rosa, and also Mr. Cassidy's by turning this lever, or crank, rather slowly, until it elevates it far enough, and place another tray in at the bottom, in this manner (illustrating). The devices used in here are the screws at the corners, and the chambers to hold the trays. The trays rest in the grooves on the screw between the threads. There are four screws, one located in each corner.

A JUROR. Q. Did you make those screws yourself?

A. I took them from other machines and placed them in this model. I made the model. The screws are regular, I took them from other machines and placed them in this model.

MR. WHEATON. Q. Are those screws all alike?

A. Yes sir. Each screw supports one corner of each tray. As you turn the screw the tray gradually moves upwards. When you turn the crank it revolves all of the screws at once. In that

74 machine you can remove the trays from any place you choose in the vertical movement, simply by having a door, so that it can be taken out at any place, or if there is only one tray left, it may be raised to the top and taken out at the top door. It may be taken out at the bottom or the top, for you can run the trays either up or down just as you choose. I understand the mechanical operations of the machinery that is described in the plaintiff's patent.

I have never seen any of the dryers built by Mr. Cassidy in operation. I reside 16 miles from Mr. Cassidy in the same county. I have resided there since I was born.

Q. How long have you been interested in the fruit drying business?

A. I have been interested with my brother since four years. Before that I was in the drying business with my father at home. I have never seen one of Mr. Cassidy's driers. I cannot see that the

dryer which we use possesses any advantage over the Smith dryer shown by the model.

Q. Are there any movements of the trays in the machine which you use, which are not made by the Smith dryer mentioned?

A. No sir, there is not.

A JUROR. Q. This is not the kind of dryer that you use?

A. No sir, it is not the kind we are using.

(The model was here placed in evidence, Marked Defendant's Exhibit No. 5.)

MR. WHEATON. Q. Have you a model here of the machine which you use?

A. Yes sir. The front part of this model represents the machine which the defendant is using.

75 The devices used in it are the posts with the gravity catches in corners elevating the trays. The bent lever which I have used in operating the model is exactly the same which we use in our machine. It is pivoted the same to the drier with the exception that a post runs from here up there, where we have it on outside, simply because there was not room to put it inside, that is all the difference. The mechanism which moves in that model on the front side of it and the cross heads up top are the same as used in our drier. We have another device up and down the back corners, the same as in the front. These driers were made about 5 years ago by the defendant first. I think it was in 1885 or 1886. I am not positive about that, I have no means of fixing the date when it was.

Q. In your machine what do you place the bottom tray upon?

A. Upon rollers on the outside. These are placed on the outside of the frame, and the tray rests upon that before you open the door to put the tray in. Inside there is a roller on each side, for the tray to roll on, just holding it above the cross bar. The bottom tray when put in our machine does not rest upon any side catches. The bottom part of our drier on which the tray rests is very similar to the bottom part of the Button drier. It rests upon bars, the same only I believe they are placed in the shape of a square in the Button drier, and in ours, two bars running across.

Q. Do you understand this screw and shaft mechanism shown in Mr. Cassidy's model for raising the trays?

A. No, sir, I have never examined that part of it.

Q. Please look at it, and state whether you understand it or not?

A. I think I understand that perfectly.

Q. Have you ever used any mechanism of that kind for raising your trays?

76 A. No, sir, we never have. We have never used anything except what is shown in the model just introduced. The plaintiff said nothing at all to us with regard to our having

used his invention. I showed him through the driers at one time. When he got through, he went away without saying a word about our infringing on his patent, or mentioning his patent at all. I showed him through the dryers in 1890. I am not positive about the month. I think it was in the latter part of August or first of September, but I am not sure about that. It was at the time our last dryer was built. It was just about completed. The first intimation we had that he claimed we were infringing his patent was getting letters from the lawyers, to call and settle, or they would commence suit. That was last spring sometime, I think.

Cross Examination.

MR. MILLER. Q. You did not settle, did you?

A. No, sir, we did not.

Q. Have you ever seen a Smith dryer?

A. No sir. I got my knowledge about a Smith dryer from reading the patent. I read it about a week ago, and I have read it since that time. I constructed this model which correctly represents the Smith dryer from the patent if it is worth anything. I have read the patent, seen the drawings, the patent does not say how the trays are constructed, only, that they are constructed of wire cloth, I suppose there is some wood about them, but it does not say so. As near as I can tell from the drawings of the patent they are constructed from wire cloth, with a frame of wood around them. They are not exactly like the construction of our
77 trays. They differ in this that there is no cross wire shown, crossing their tray diagonally as they are in ours. They are constructed with a flange the object of which is to rest in the groove of the screw. That construction of tray is necessary with that kind of device. Without it the wood would be too wearing in the grooves. It would wear the wood out in a short time, and you would have to put on iron. These flanges are supposed to be made of metal, I believe. There would be considerable wear between the wearing of the trays and the screw. These screws can be made any length. They can be made any size, to suit the size of the drier. The patent does not state the size. It simply states that they are generally placed in a three story building, which is not necessary. It can be placed in a one story building just as well. They have machines that can cut those screws perfectly even without any difficulty. I think it would be a simple thing to cut them. I never cut any, that is my judgment. I have known of the Smith patent for about a week. My knowledge of it is gathered from what I found of it during the week. I have known of the Button patent a number of years. I don't know exactly how long, we had one in use part of the time. That was three summers ago. It is standing there yet. It belonged to a party named Mr. Roberts. We rented it because we had more fruit than we could put through

our own driers. We do not rent it now.

Q. You say that you do not see that your driers had any advantage over this Smith drier constructed with those screws, is that a fact?

A. Yes sir. The reason why we don't use the Smith driers is because we did not know of it at the time we built ours. I know the patent has expired, and that we have a perfect right to use it if we see fit. We never used it.

78 There are seven other parties connected with the firm besides myself, they are J. H. Hunt, Mr. Curtis, L. W. Burris, M. J. Stranning, Charles W. Pike, E. C. Merry, R. W. Hawes and Paul Hunt. My father is not connected with the concern, he does not own any stock in it, and never has had any. He is running drying himself at Sebastopol, about 8 miles from our place.

MR. MILLER. Q. Who built your driers?

A. A man of the name of Folger did the woodwork, and some of the iron work was done in San Francisco. In fact they had 25 men working on it at one time. I planned the driers, from driers I had seen before, from one my father built. I planned them from the one we had before that. The first drier, I did not build. The drier that we are speaking of now, we commenced building last year.

Q. Please fix the date when Mr. Cassidy came up there, and you showed him through the establishment?

A. The exact date I don't remember, it was in the year 1890. I fix that from the fact that it was our first canning year in Santa Rosa, and Mr. Cassidy had sold us some fruit and was up there. Whether he came to settle that day or not I don't remember. Any way I took Mr. Cassidy and showed him through the cannery and through the dryers also, as a fact. I heard Mr. Cassidy testify that he did not remember my being there. He said he did not see either one of us. At the time he is speaking of, he may have gone through without us but I showed him through the dryers once, I remember that quite distinctly. That was a year ago last summer, I should say.

Re-Direct Examination.

79 MR. WHEATON. Q. You have testified to the Button patent. What is the difference in the operation between the Button machine and your machine, as to raising the trays?

A. In the first movement I do not see any material difference. After the first movement the Button patent rests one tray on the sides of the other, while in ours each tray rests on separate brackets or gravity catches.

Q. Does every tray have a support which carries it to the top of the drier?

A. Not a separate support in the Button drier. It has a support. The reason that it has no separate support in the Button patent is

because one tray rests on the sides of the tray below, the weight of all the trays resting on the catches at the bottom. That makes a separate support for each tray, but at the same time each tray would be carrying the weight of all the trays above.

Q. What material difference does it make in the operation of the machine, whether the trays are carried up one above the other or supported and carried up by these catches?

A. The only thing is it is a little convenient in taking out the tray at any point.

Q. What prevents the devices that are used in one machine for carrying up the trays from being an equivalent of the devices that are used in the other machine for carrying up the trays?

A. They are equivalent I think. Both accomplish the same thing by different operations.

Q. What difficulty, if any, have you experienced with the gravity catches in practical use?

A. They often gum and fail to drop out, letting the trays often come down at one corner, and as each tray passes a bracket, that is caught, and finally all the trays are standing on one edge
80 and spilling the fruit.

That has happened in my stacks many times. I don't know whether or not it would happen if I had spring catches. I have never used a spring catch. It could not very well happen to the Button drier, unless the bottom catch should happen to drop.

If it did it would happen in the Button drier. The gumming is liable to take place at almost any point; the bottom will be worse than nearer the top.

Our stacks are built to hold 36 trays. That makes them between ten and twelve feet high. Our trays are three feet and a half square. We get rid of the condensed moisture at the upper end of the stacks by creating a draft, through each stack, by turning cold air in at the bottom, and allowing the hot air to pass out at the top. There is considerable draft through our drier. The more draft you can get without having too much the better it is. If the draft were entirely stopped, the moisture in the upper part of the stacks would condense considerably. So that the fruit would go through a sweat instead of drying. It would cook the fruit and not dry it. It would leave the fruit all soft and mushy.

MR. MILLER. Q. You stated in your judgment the device for raising the trays in the Button patent was the equivalent of the device used in your drier?

A. Yes sir.

Q. The device used in the Button patent consists in four spring catches at the bottom of the stack, does it not?

A. They have a catch with a spring back of them, I believe.

Q. As the tray comes up the spring goes into the groove
81 and allows the tray to pass. When the tray gets above, the

spring comes back to its former position and rests on the spring?

A. No sir, it rests on a gravity bracket with a spring behind it so that if it should catch it would throw it out. I mean in the Button device. In my judgment a spring catch is a mechanical equivalent for a gravity catch. The gravity catches used in my machine are the mechanical equivalents for the spring catches used in the Cassidy machine. We have not used the Button patent because we thought it was better to have it continue by each tray resting on separate rests, instead of every tray, on every one below it, it is only a matter of opinion why it is better. That is the arrangement shown in the Cassidy patent.

A JUROR. Q. You speak of those equivalents of Button and your drier for raising. I should like to ask you if there is not something in connection with the weight, that is on the lever you have to raise, if you have the Button patent. You would have a pretty heavy weight?

A. It would be exactly the same as ours at present.

Q. You would have the weight of all the trays resting on that lever as you put them up?

A. We have on this one too. The lever raises the bar the full height of your dryer.

Q. What bar?

A. The sliding bar.

Q. I do not think you explained that to us fully?

A. I can do that.

Q. I did not so understand?

A. The weight of this bar, and the weight here on the top, comes on this here (pointing).

82 Q. You have not those movable posts represented in the Cassidy machine?

A. These are what they claim are the movable posts (pointing). The weight on the bottom and the weight on the top would be exactly the same on the lever.

It would not make any difference whether the weight was on the bottom or on the top.

MR. MILLER. Q. In this device of yours you have four movable posts, one at each corner?

A. Not exactly posts. They are iron. The same thing as posts. They have a series of gravity catches from the top to the bottom. They have also four stationary posts besides the movable posts. These also have gravity catches arranged in them. We have a drying chamber. This model here is supposed to be enclosed—it is left open to show the working better.

We have in combination with the drying chamber the movable posts provided with catches and stationary posts provided with catches and the mechanism for lifting them.

MR. WHEATON. Q. Is it not true also that in the dryer made by Cassidy the whole weight of the trays, every time that he lifts them, comes upon his lower catches in the lifting?

A. They do not come on the catches themselves. They come on the sliding posts. The weight of all the trays is on the sliding posts, whether near the top or bottom.

Q. Does not the weight of those four sliding posts, every tray carried by those sliding posts, come upon his lower catch, when he lifts them?

A. No sir, they do not come on the lower catch. They rest on the catches on the sliding posts.

Q. What lifts the sliding posts?

A. The same as this would be lifted by the lever. Instead
83 of all of them coming on the bottom piece, they would come on the post, but the weight would come further up, on a separate catch.

Q. In that respect there is a difference between the machines that you use and the machines built by Mr. Cassidy?

A. In ours simply the weight of the tray rests upon the catches the same as theirs. The weight of that we spoke of a while ago is all on the lever, but in the posts the weight may be distributed from the bottom to the top. You may have a tray resting on top and all the weight is on the catch instead of the catches on the bottom. The weight of the whole machine and all the fruit is on the lever.

Q. You put your bottom tray on the table or on the rollers?

A. On the rollers. On the bottom there is no catch at all. It is simply a cross bar until it raises above the first catch. Then from there up there are catches. I think in Mr. Cassidy's machine he has a catch on the bottom. It is a stationary pin. It is a stationary lug for the trays to rest upon.

Q. In each movement upwards of the trays does he not have to have the entire weight of the trays and the sliding posts rest upon the device that lifts them up?

A. Certainly, it all rests upon a device for lifting. They all have to be lifted with one device. The entire weight, whatever is lifted, has to come upon that device which lifts it.

MR. MILLER. Q. In that respect it is just the same as yours?

A. No sir, it is not. In ours the weight is lifted here. The means for lifting them is different. So far as the distribution of the load is concerned it is just the same.

84 C. WIGHTMAN re-called upon behalf of the defendant testified as follows:

MR. WHEATON. Q. What if any thing did Mr. Cassidy say to you about bringing suit?

MR. MILLER. I object to the question as irrelevant, immaterial and incompetent.

THE COURT. What do you wish to prove?

MR. WHEATON. I wish to prove that Mr. Cassidy came to him and requested him to join Mr. Cassidy in bring suit, saying in effect that he could not do anything alone because the Button patent was ahead of his and the suit would have to be brought on both patents, showing an admission on his part that the Button invention was ahead of his own. They have proved by Mr. Cassidy that his invention was ahead of the date of the Button patent. I want to show by Mr. Cassidy's statements that he did not consider that his invention was ahead of the Button invention.

MR. MILLER. I think that it would be wholly immaterial. Here is the Button patent and the Cassidy patent. It is for the Court to say what they are for. Any notion that the parties might have had, or any proposition that Mr. Cassidy might have made to join with any one else to combine their forces would cut no figure at all. I do not think that is relevant.

MR. WHEATON. I think that it is material in another respect. It is a direct admission on his part that his machine was an infringement of the Button patent.

THE COURT. Read the question in regard to that.

THE REPORTER. (Reading) "What if any thing, did Mr. Cassidy ever say to you about bringing suits"—

MR. WHEATON. Or about your joining him in bringing a
85 suit?

MR. MILLER. I make the same objection to that.

THE COURT. If you want any conversation as to the dates as to the application for the patent, or any thing of that kind, you can ask that. That probably will be material.

MR. WHEATON. Do I understand your Honor to rule it out?

THE COURT. It seems to me that it is immaterial. I do not think that the fact that he asked him to join him in a suit would cut any figure in this case.

Exception No. 6.

To which said ruling of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

MR. WHEATON. Q. What, if any thing did Mr. Cassidy say to you with reference to the Button patent being ahead of his own?

A. He did not say it was ahead. He said he could not do anything without I would join him. We were talking about a drier that came out that was an infringement on his and the Button drier also. I suppose his idea was to get me to join with him to prosecute. It was the Champion drier. Mr. Hoig had the patent. He suggested to me to join to prosecute Hoig. He said there was \$50,000 in it. I asked Mr. Cassidy the question: If you prosecute him and get judgment, where will you get your money? He said he thought he could get it without any trouble. I told him I knew

he could not.

THE COURT. I think we are going outside. I do, not want to shut out anything that is proper though.

86 MR. WHEATON. Q. Did Mr. Cassidy say anything in regard to his infringement on the Button patent himself?

A. No sir. He did not say to me that it was an infringement on the Button patent. He said that all the patents issued were an infringement on him. When I was first talking to Mr. Cassidy as I said before, was when I saw him in Petaluma and he had a large drier there, the same size as the drier he uses, about three foot square, and we were talking about it. He went on to explain the drier and also said that his was the first patent except the Smith patent. I spoke to Mr. Cassidy at the time and said I always thought that Alden's patent was the first patent. I think he said that it was the Smith patent. He said that all patents that were issued after that were an infringement on his drier and he was going to prosecute them.

JOSEPH H. HUNT was called on behalf of the defendant, was sworn and testified as follows:

MR. WHEATON. Where do you reside?

A. Santa Rosa. My age is 27. I am president of the corporation defendant in this case and also one of the managers. I hold individually about one-third of the stock of that corporation. I am a brother of the Mr. Hunt that was a witness yesterday. That corporation was formed April 10, 1890.

Q. When, if ever, did you know of one of the Alden fruit driers?

MR. MILLER. I object to the question as irrelevant, immaterial and incompetent. We have received no notice of Alden as an anticipation if it is offered as an anticipation.

87 MR. WHEATON. I do not suppose the Alden is an anticipation. It did not have spring catches, but we offer it to show the state of the art. We claim that it was so near what was patented that the difference between what was patented was so little as to invalidate the patent. We do not offer it as an anticipation.

THE COURT. I will allow the question.

A. Since 1876. I first saw one operated on my father's ranch near Sebastapol in Sonoma County. I did not have anything to do with building it. I had full charge of it for three seasons. I never saw one of the driers built by Mr. Cassidy. I have read the specifications of Mr. Cassidy's patent and understand how it is constructed as well as could be learned from the specifications of the patent and looking at the model.

I have never examined the model closely but I think I understand the workings of it thoroughly.

Q. Please look at the specifications of Mr. Cassidy's patent, and

state what means are described there for operating or moving up and down the vertical sliding posts. It says "The movable posts L may be elevated and depressed in many ways, as by cams, eccentrics, etc., but in the present case I have employed a central roller O, with a crank at one end. Upon this roller cords or chains P, are coiled." Do you understand that part of the description of the specifications?

A. I think I do. I do not see anything described as that is in the model of Mr. Cassidy's drier, for raising and lowering the posts. I do not see in it anything that corresponds to the roller O, in the crank mentioned in the patent, nor any devices there that winds up cords. Nor any cords attached to the bottom of the posts that raise them. I do not find described in this patent
88 any of their gearing as shown in that model for raising the posts. There is nothing that applies to this gearing at all.

Q. When did the defendant corporation first build any driers?

A. In 1890. We built what we term two driers.

That is six stacks over each furnace, what Mr. Cassidy would term 12 driers—12 stacks. Six of them over each furnace, making 12 stacks in all. The corporation since it was formed has never built any other driers. I built one myself prior to the time that we incorporated. That is now owned by the corporation. One drier with six stacks. These three furnaces and those 18 stacks include all the driers that the defendant has been in possession of or used.

Q. Do you know how your father came to build the Alden drier in the first instance?

A. He bought the patent in 1876, and put in an Alden drier. He bought the right to use it, to build driers that he built. I don't know if he bought any state rights or not, I don't think he did. I think he just bought the right to use what he put in. At the time I built my drier, and the defendant when it built its drier, had full right from my father to use the Alden.

MR. WHEATON. We have not the Alden patent here, but I have the patent office reports of 1870. The Gazette was not then issued. I offer the record of that merely for the purpose of showing the date and also what the claims were, the date of the Alden patent.

89 (The evidence here offered consisted of a portion of page 196 of a certain book entitled as follows:—"Annual Report of the Commissioner of Patents for the year 1870. Volume 2. Washington Government Printing Office, 1872.")

Without any further authentication or proof of publication and read as follows:—100,835 Apparatus for drying and evaporating. Charles Alden, Newburgh, N. Y.

The said claims therein set forth being as follows :

CLAIM—1. The arrangement of a series of platform, attached to endless chain, and receiving a rising or falling motion in a trunk or chamber, supplied with a current or currents of hot or cold air, substantially in the manner shown and described.

2. The arrangement of an air chamber on one or more sides of the trunk, said air chambers being provided with nozzles to throw currents of air over or between the platforms, substantially as set forth.

3. The arrangement of fingers projecting from endless chains, and capable of supporting the platforms during their rise or fall, and of depositing the same automatically at the bottom of the trunk, substantially as described.

4. The arrangement of a conveyer, substantially as described, in combination with the platform and with the endless chains and their fingers, so as to remove said platform from the bottom of the trunk.

MR. MILLER. I object to it, it is not a competent record. This is a patent office report which contains the claims of the patent and the drawing of the patent. It is not the patent and it is not the specifications of the patent and does not contain the specifications of the patent.

90 THE COURT. You have already shown the existence of that patent. Therefore it will be immaterial what the date is. I doubt if that book is admissible in evidence for any purpose. It does not seem to me that it is.

MR. WHEATON. The ultimate object is to show when that patent expired and to show when that became public property.

MR. MILLER. I object to it because the book is not competent evidence of any thing.

MR. WHEATON. Any book that has the description of a patented device is competent evidence if it is anterior to the plaintiff's patent.

THE COURT. What is that your book which you have there?

A. It is the official reports issued by the patent office itself.

MR. MILLER. That is, it purports to be that.

MR. WHEATON. It is that.

MR. MILLER. Where is the evidence of that?

MR. WHEATON. I will swear Mr. Miller and he will swear to it?

MR. MILLER. I will not swear to any thing of the kind; it is a common, ordinary patent office report, containing the claim and drawing.

MR. WHEATON. I said I could prove it by Mr. Miller.

THE COURT. I do not see it cuts any special figure.

MR. WHEATON. I will state to your Honor what I am driving at. The parties have shown something in the nature of a royalty collected way back of the time before this patent expired. When this patent expired every one could build the Alden furnace

91 and then although the Alden furnace was covered by a patent prior to that date, and the public could not use it, the very fact of that expiring may be the reason why he could not sell another royalty, because the public had a better drier than his which had become public property.

THE COURT. I do not think that book is admissable in evidence.

MR. WHEATON. Does your Honor rule it out?

THE COURT. Yes.

Exception No. 7.

To which said ruling of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

MR. WHEATON. Did you hear Mr. Cassidy's testimony as to when he was at the defendant's factory and saw their driers?

A. I did. I know the exact date by our books. It was June 23, 1890. The driers were in mode of construction. We had just commenced to put in the machinery. Had enough in to show the workings of it, but it was not completed. I saw my brother start through the cannery with Mr. Cassidy, showing through the factory where they were at work. I had no conversation with him about those driers until the suit was threatened. First intimation I had that he had a drier any thing like ours was getting a letter from his attorneys to say that unless we settled he would bring suit.

Q. What was the cost of building the driers which defendant used?

92 A. I have not the exact cost of the drier built in 1887 by myself. Those built in 1890 representing twelve stacks of the eighteen that we now own cost \$6740.59, with the complete building and apparatus. The building is 66 by 80 feet. The stacks are built right along one beside the other twelve inches apart. The furnace and pipe run back and forth the full length of it.

Q. What was the cost of each one of those furnaces with each set of three stacks belonging to it?

A. Within a few dollars of two thousand dollars apiece. \$4000.00 for the twelve stacks including just the brick work and driers, aside from the building. I dont know that this is exact. The cost does not vary a great way from \$300. for each stack. I could not swear positively. I think it was over \$300. I know that was estimated as what it would be,—\$300. apiece and it cost a little above what our estimate was. That is my impression.

Q. Can you state positively whether it was over \$250. for each stack or not?

A. Yes sir. It was over \$250.

Q. How does the operation of your drier compare with that of

the Alden drier which your father built and you used?

A. There is a very slight difference in raising the trays. In the Alden drier the brackets were on endless chains going up on the inside of the drier and down on the outside. As the chains come in under the wheel of the bottom the brackets drop out. As the chain goes out at the top of the drier the brackets drop down to allow it to come down in a compact space and suitable gearings for raising those four chains at one time. As they are raised up these brackets sticking out at each chain in the four corners carry the chain up. In moving them up one notch a tray is put in and then another notch and so on until the drier is full. Then
93 the operation of taking off the dried fruit at the top and putting in the green fruit at the bottom continues. It is the same way with our drier instead of using the endless chains we cut it in two and put both pieces on the inside. It was originally an endless chain, but we cut it in two. One piece worked up and down in each corner, while the other four were stationary, using the same Alden chains that we had in the old Alden.

Q. Look at the wooden model which I now show you and state how nearly it represents the Alden chain which you now use?

A. It is as near exact as is practical to make it, with the exception of one or two very slight things. The only difference is this bracket over the double bar, instead of being riveted on the outside is riveted on the inside between the two bars. The bracket riveted on the single link is the same here. They project out in that manner. We had two, one along side of the other. One of them worked up a notch and brought the tray up until it would pass up and down above, like that.

On the stationary one, as that would drop down the chain that works up was allowed to go back in this manner, and this would drop out there (pointing). That is the next bracket above would drop out below that tray. In bringing it up again it would bring it up past the next bracket on a stationary chain. That was simply making a little change in the Alden drier whereby instead of using endless chains going around, we put the chain in two pieces in each corner and worked one up and down while the other was stationary. That change was made I think about 1883, in my father's drier. I forget the exact year. All the difference now
94 between that and our present means of raising is, instead of having one single link, and one double link we take two bars of iron and riveted the single link in between all the way up, and have it solid instead of being jointed. Putting the bracket in between, and a pivot in here to keep it from falling over. As one worked up past the others it would drop back. The same means of raising it, with the exception that instead of having link chains like this, we had two straight up and down bars with these brackets riveted between them. That is the difference be-

tween the drier and the Alden drier that was originally used by my father.

(The said model was here introduced in evidence and marked Defendant's Exhibit 7.)

Q. Have the defendants used any vertical movable posts in their machinery other than the two straps of iron with these catches between them, as you have thus described?

A. No, sir, they have not.

Q. Please look at the movable posts in plaintiff's Exhibit 3 and state whether the defendant has used posts of that description or not.

A. No, sir, they have not. All the posts that we have used are those two bars of iron with the catches riveted between them.

Q. Are these two bars of iron with the catches between them used on each side of one of the defendant's stacks lifted from the bottom or are they suspended from the top?

A. Fastened at both ends. They have cross supports at the top and also at the bottom. They are built solid all in one frame.

Q. All move together?

A. Yes, sir. The four move by one means and the four stationary ones are bolted to the wood work of the drier.

95 Q. What name, if any, do you sell your dried fruit under?

A. Hunt's Improved Alden is the brand that we are using. We originally used the Alden. We have a reputation for the Alden brand of goods. When my father made the change, while the fruit was no better, and there was really no change in the process he called it the improved Alden. Simply the improvement instead of using the endless chains he uses the two pieces inside, one working up and down and the other stationary. Since that, we have branded the fruit "Hunt's Improved Alden." The Alden is the prominent word in the brand. That is the brand that we have the reputation for.

In the Alden dryer the mechanism for moving the chains which lifted the trays was a gearing by means of cog wheels. There was a shaft that went across the top. I am describing the patented Alden dryer.

Q. What mechanism was used in the Alden dryer which your father first built for moving the chains which lifted the trays?

A. Simply a lever, the same as represented in this model. The chains were supported by means of cross irons at the top. They were rivited to that. It was all made in one cage. As the lever was pulled down, it threw this cage up, and moved all four of the chains up together on the inside. As the handles were let back, it dropped down below the next tray again the same precisely as this model of our dryer. (Pointing to Defendant's Exhibit 6.) The endless chain was cut in two. It was not the endless chain when it slid up and down inside. My father first built the Alden dryer, running with

the endless chain. The mechanism for moving those chains were a shaft with cog wheels on that, and the cog wheel went
96 through the dryer and the chain went over some wheels.

By turning a crank thus (illustrating) it turned those cog wheels, and wound the chains up on the inside, so that those two shafts turned in opposite directions, rolling the chains up on the inside and down on the outside. That was done by means of a crank similar to the one of the plaintiff's by screws. The mechanism was almost identically the same with that which is in the plaintiff's model Exhibit No. 2, except the Alden dryer turned always the same way, while this turns up the same way as the Alden dryer until the tray raised one notch and then moves back. The Alden moved exactly the same way except that it rolled up on the inside; both moved up. The mechanism was the same in both. In one case it was used by turning it always in one direction, and in the other by turning it in one direction and then back again.

I am acquainted with the Button dryers that were built by Mr. Wightman the witness, have seen a good many of them. Have seen them at several different ranches at Sebastopol, and at Santa Rosa. They are the most popular dryer now in use in Sonoma county; there are more of them in use I presume than perhaps all others put together.

Cross Examination.

MR. MILLER. Q. You say your father bought an interest in the Alden patent and built an Alden dryer in 1876, and you assisted in building it?

A. I did not say I assisted him in building it. I assisted him in running it. I worked on it two or three years, I forget whether it was two or three years. That is the one that had the endless chains which went up on the inside and down on the outside.

97 The next one father built was the one that he has now, built I think in 1883.

That is the same as the other with the exception that he uses the chains, but half on the inside, instead of using the endless chains. He cut the chains in two. He dispensed with the feature of the Alden dryer consisting of the endless chains. I don't know why he did it.

Q. Are you not sufficiently versed in the art of fruit drying to know why he did it?

A. I have been at it for sixteen years. I know more or less about the business but why he did things eight or ten years ago, I don't know.

Q. Did it improve the dryer?

A. Yes sir. I guess it was an improvement. It was an improvement on the old Alden dryer mainly because it allowed you to have less trays in a stack. If you have too many trays of fruit one above the other the fruit will become dry, and the moisture from

the bottom trays will be absorbed in the dried fruit at the top, and it will become damp, what we call sweating. It is very hard to get a draft of hot air through a tall chamber of fruit. My father still kept the chain but cut it in two. He kept it as a flexible chain. One ran up, the other was stationary.

The one that ran up was not on a movable post. There was no post above it. The chain was riveted to a bar of iron at the top and another at the bottom; a frame work was on the outside of the dryer, that supported the two cross bars, one at the top and the other at the bottom. He built one dryer with five stacks in it, which are the ones he now has, except as I said he has taken the link chain out and put in the two solid bars of iron through to the top.

98 I don't know when he did that. It is some time since the dryer was built. That does not improve the dryer any. It lifts the trays the same exactly. It is a mere matter of preference as far as I can see. He changed from the flexible to the solid chain. We have a solid bar in ours. In that respect my father's and ours are identical.

Q. In your judgment is that a better way than having a flexible chain?

A. I don't think it is. It may be better in some ways. It is a mere matter of opinion whether it gives a better result or any cheaper.

Q. What is your opinion?

A. My opinion is if I had to do it over again I would use the flexible chain. We learn these things by experience.

We didn't use the flexible chain when we built our dryer because we did not know any thing but what my father built.

We were too new to the business. We took any thing he had and put it up, patterned after it exactly.

Q. Copied after your father's dryer?

A. Yes sir.

Q. You had a right to build the Alden dryer, if you wanted to?

A. I suppose we had. We had a right to build what we did build.

Q. Why did you not build an Alden dryer?

A. Because I did not know how.

Q. You had seen them?

A. Yes sir.

Q. Had you seen any dryer like the one you did build, before you built it?

A. Only the one my father has.

Q. You had seen the one your father had, and seen an Alden dryer?

A. Yes sir.

99 Q. So that you knew how to build one as well as the other?

A. No sir.

Q. You did not know how to build the Alden dryer?

A. I did not know how to build either one, without taking the irons off the dryer and patterning after them.

Q. You knew what an Alden dryer was at that time?

A. Yes sir.

Q. With the endless chains running outside, and inside of the stack?

A. I remembered all about it.

Q. You knew there was a patent on it?

A. I knew there had been.

Q. You knew you had a right to build it, if you wanted to?

A. Everyone had a right to when we built ours.

Q. Why did you not build the Alden dryer with endless chains?

A. Because we did not know the manner of how it was put together, as well as we did the one that was sitting right by the side of us.

Q. You never saw an Alden dryer in operation?

A. Yes sir, I have.

Q. Have you seen any dryer like the one that you did build, in operation, before you did build it?

A. I think I stated 2 or 3 times, only the one my father had.

Q. You have just stated that that was a different kind of a dryer; that that had a chain in it?

A. The one my father has, is the one improvement on the Alden; what he calls the Hunt Improved Alden, and the old Alden is the one he originally used.

Q. What satisfaction did the Alden give?

A. Good satisfaction, with the exception, as I say, there were too many trays, one above the other, and it was a little difficult to get a draught of hot air through the fruit.

100 Q. You also saw a Button dryer before you built yours?

A. I don't remember that I examined it before I built ours. I don't think I did. I knew of them.

Q. They gave good satisfaction?

A. So far as I know.

Q. Why did you not build a Button dryer?

A. Because I did not know anything about it. I took the one we knew something about and that we were copying the building of, and that was the one my father had. I did not go over the country looking at different dryers. I thought that was good enough.

Q. How far was there a Button drier from you?

A. When?

Q. At any time before you built yours?

A. When I lived on the ranch with my father, there was one within two miles of us.

Q. Did you see it?

A. Yes sir.

Q. Then you understood the Button drier?

A. I never examined it. I saw them drying fruit.

Q. You have been in there?

A. Yes sir.

Q. You said there were more Button driers in Sonoma County than all the rest put together?

A. I said I presume so.

Q. Do you still stick to that statement?

A. Yes sir.

Q. As an expert fruit drier, and having lived in Sonoma County as long as you have, do you undertake to tell me you did not know what the construction of a Button fruit drier was?

A. I do.

Q. How long have you lived in Santa Rosa?

101 A. 20 years or more.

Q. Are you willing to tell this Jury that you lived there for 20 years.

A. I have lived in and about Santa Rosa.

Q. That you are an expert fruit man, that there are more Button driers in that County, than all the rest put together, and that when you went to build your drier, you did not know enough about a Button drier, to build one like it? Is that what you want to tell the Jury?

A. I lived around Santa Rosa and Sebastapol for 20 years, been in the fruit business for 16 years, and I presume there are as many Button driers as all the others put together in Santa Rosa, so far as my knowledge goes. I never counted them and I mean to say, I never examined a Button drier, or the machinery in one, before we built ours.

Q. You mean to say also, those Button driers gave satisfaction?

A. So far as I know. I never inquired into it.

Q. You knew the Button patent had expired?

A. I know now. I did not know anything about it, at that time. It had not expired at that time.

Q. Explain to the Jury why it is, when you went to build your drier, you did not build a Button drier?

A. Because I was raised up on my father's ranch. He had a drier which gave good satisfaction. It worked well enough so far as I knew, to be as good a drier as we wanted. We could take that drier down and pattern after it, and build one like it.

I took the drier down and patterned after it, and built identically the same thing in Santa Rosa.

Q. You built the identical drier that your father had?

102 A. Except I put the furnace 3 and a half feet longer, and put 6 stacks on, instead of 5, which he had.

Q. Did you have an endless chain on your drier?

A. No sir.

Q. Your father did have in his?

A. No sir.

Q. He did at first?

A. Yes sir.

Q. The second one he cut the chain in two and riveted the links together?

A. That is what I said.

Q. Did you cut the chain in two, rivet the links together, and put them in your drier?

A. I never had any.

Q. Then why did you say you made the same identical drier that your father had?

A. I told you that my father took those chains out.

Q. When you built your drier, you put in solid bars like his, shown in this model of yours here?

A. Yes sir, we did.

Q. That is not like your fathers?

A. That is like my father's exactly.

Q. I thought you told me your father took his, and riveted the links together?

A. He first took the chains, cut them apart, and then took them out. I explained to the Jury he took two bars of iron solid, from bottom to top, and those brackets were riveted between those two bars of iron.

Q. That is just like this (pointing)?

A. Yes sir.

Q. This is the kind of a drier that you have used?

A. Yes sir.

Q. Then your father made several changes in his drier?

A. He made the change mentioned. He took the link chain out, and put the solid piece up, with the brackets riveted between them. Instead of having every other bracket riveted over one piece of iron, with the next one riveted between two pieces in a link chain.

Q. Were any of your driers built before the incorporation was formed?

A. Yes sir.

Q. What business were you in prior to the formation of the corporation?

A. I was in the fruit business.

Q. In the same place where you are now?

A. Yes sir.

Q. At Santa Rosa?

A. Yes sir.

Q. You had the same establishment?

A. I did not have the same plant; I had a little drier across the creek.

Q. What was the name of the firm before the incorporation?

A. Hunt Brothers.

Q. You simply transformed your business into an incorporation?

A. That is all.

Q. No change in the business?

A. No sir.

Q. How many driers did you have when you formed the corporation?

A. One—six stacks.

Q. That was in one building by itself?

A. Yes sir.

Q. After the corporation was formed, you built the others in the other building?

A. Yes sir.

Q. You have been using all those driers since the corporation was formed?

A. Yes sir.

Q. How long have you known Mr. Cassidy?

A. I have known him for some time. I have not known him personally, only since May, 1890.

Q. How long have you known of him, as being in the fruit business?

104 A. I don't know that I can say just how long I have known of him as being in the fruit business. I have heard of Mr. Cassidy, but to know what he was doing, I have no knowledge of him. I did not know who he was when I saw him. I knew there was a Mr. Cassidy in Petaluma.

Q. How far does he live from you?

A. Sixteen miles.

Q. In what connection did you know about him?

A. I heard of his being around the county fairs and other things.

Q. What things?

A. I heard people speak of seeing him at the county fair. I think I heard Mr. Wightman tell about his having a model of a drier that he was exhibiting at Petaluma, that was an infringement on his, and heard him give a conversation about it.

Q. Mr. Cassidy is pretty well known in Sonoma County as being connected with fruit dryers?

A. I presume so. I don't know how widely known he is.

Q. You heard from time to time that he was connected with fruit dryers?

A. I knew he had a fruit drier.

Q. Where was the fruit drier that you knew he had?

A. I never saw it, I heard it was in Petaluma.

Q. How long did you know of it being in Petaluma?

A. I could not say. I just have a faint recollection of hearing the thing mentioned; that is all I know about it.

Q. Where did you see it?

A. I never saw it at all.

Q. You simply say you heard of it?

A. That is all.

105 Q. You knew that Mr. Cassidy was connected with fruit driers?

A. Yes, sir; I might say that I knew it. I don't know that I ever gave the matter any thought. If someone asked me I might say he had a fruit drier.

Q. You also heard that he claimed he had a patent on a fruit-drier?

A. I think I heard it. I don't remember whether I did or not, before this came up.

Q. You must have known it, judging from what you just said about that conversation, concerning the Button drier.?

A. I think I knew all about it 8 or ten years ago, but I don't remember what I knew about it. I have a faint recollection of his having something to do with a drier. I heard Mr. Wightman speak about it, but that is lately. It gave me no concern. It is since this law suit came up, that I have inquired more about it than I ever did.

Q. Your hind sight was better than your fore sight?

A. Yes, sir; a great deal.

Re-Direct Examination.

MR. WHEATON. Q. As a convenient method of operating the movements of the drier, how does the lever which is used by you compare with the crank mechanism which is shown in Mr. Cassidy's Model Exhibit No. 2.

A. The lever used by us is far better in all ways. In using the crank in the old Alden it was continually getting out of order. These cog wheels are liable to get a little misplaced or something. It might slip in that way. Is a great deal harder and takes a great deal more power and does not work as nice by any means, while the crank has simply a fulcrum and a lever. You take hold of it in this way and let it down and the whole operation is performed
106 without any strain or any chance of any thing getting out of order; very little machinery; very simple, the fact of its not being complicated is its main advantage.

Q. Can you tell how the defendant's lever movement would compare with the method described in the patent for the use of the roller "O" and the ropes running over other rollers and connected at the bottom with the vertical posts?

A. Not clearly, because we have no model of it with the roller. While the roller winds by ropes in some way over the ropes, and

forces the posts up, and then allows it to roll back by means of winding it on a crank, forcing the posts up and allowing it to come back, this one is simply lifted by means of the lever which I consider very much better and more simple. I cannot explain thoroughly in regard to that rolling business as it is a very complicated affair, and without I had the roller I could not explain it. I do not understand all the details to explain it thoroughly. I understand it I think, but I could not show it to you without a model.

Q. I want it understood distinctly about the changes that your father made in the first Alden drier?

A. The first Alden dryer he made operated with four endless chains. In building the new drier he used those same chains if I am not mistaken. It is a good many years ago. I was not much of a lad then, and I don't remember. I think he used those identical chains, as near as my recollection serves, and afterwards took them out, and put in the solid bars of iron from bottom to top. I know that he used the same brackets the same thing exactly in the shape of the brackets that stick out on the chains, and the way they fasten. That is the reason that I think he used the same identical chains.

Q. Do you know for a certainty that he did use chains of some kind that had joints in them?

A. Yes sir.

107 Q. When he built a new dryer?

A. Yes sir.

Q. He changed those chains afterwards for the solid straps of iron?

A. Yes sir.

Q. How much of a hole was cut through the bottom of the dryer to allow each one of the chains to pass through it in the original Alden?

A. Very small. There was a hole cut just large enough to allow this bracket in going through to press in there. We put a little door to fill that hole, so that it would spring open as the bracket went through and fly back and stop all the cold air from going through.

A JUROR. Q. Is that the size of the chain that you use?

A. I don't know exactly; I think it is identically the thing, these links are about the same length; they are supposed to be four and a quarter inches apart there and every other link is a double bar riveted over the single one.

This is the same thing that we have there excepting that they are made in a little different shape.

(United States Letters Patent No. 124,944, dated March 26th, 1872, for an improvement in dryers, issued to Elisha Foote and Marshall P. Smith, were here introduced in evidence by the defendant, and read to the Jury, and were marked Defendant's Exhibit 8,

Improvement in Driers.

No. 124,944

Patented March 26, 1872

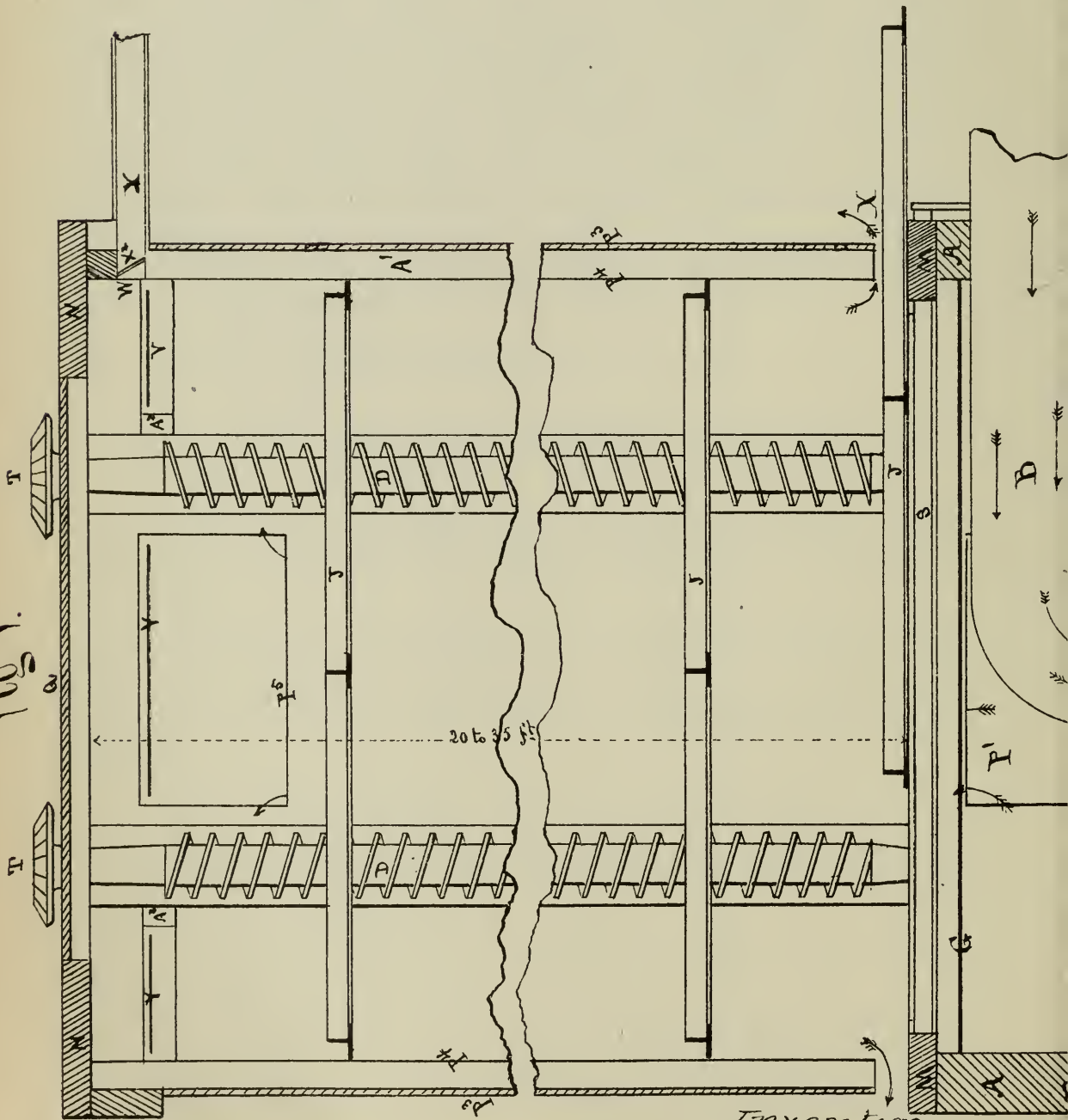
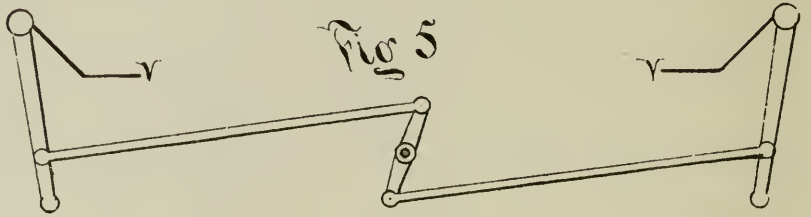


Fig. 1.

Inventors.

Elisha Foote

Wm. P. Smith

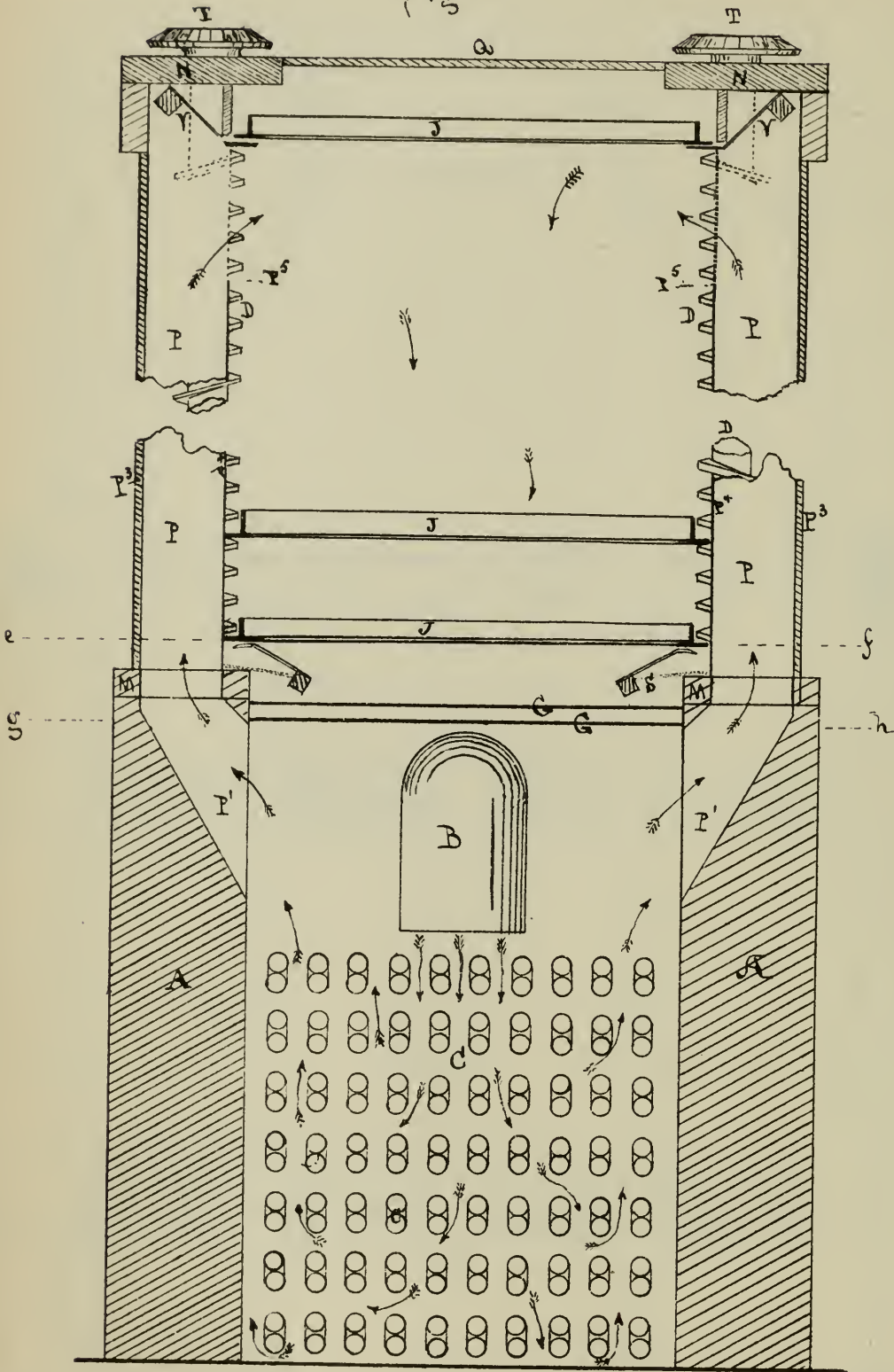
Witnesses
Jas. W. Kirkman
J. H. ...

Improvement in Driers.

124,944.

Patented March 26, 1872.

Fig 2.



Witnesses.

H. Kirkman
Woolfora

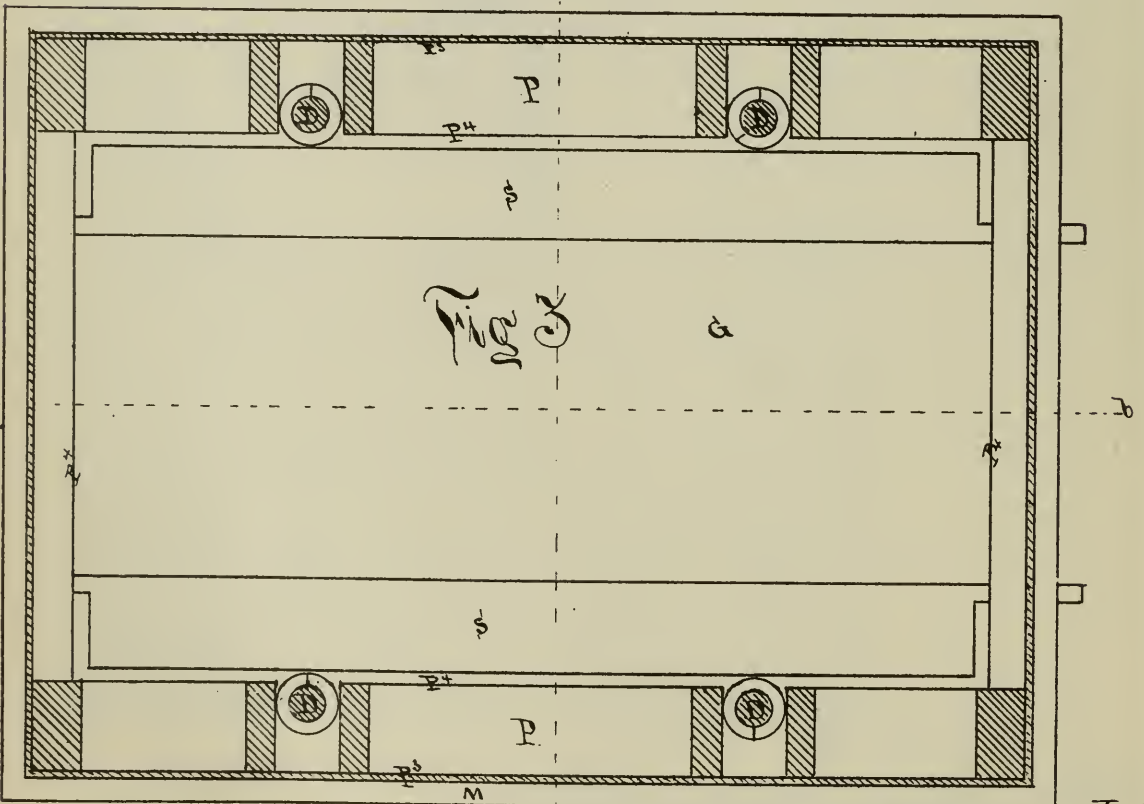
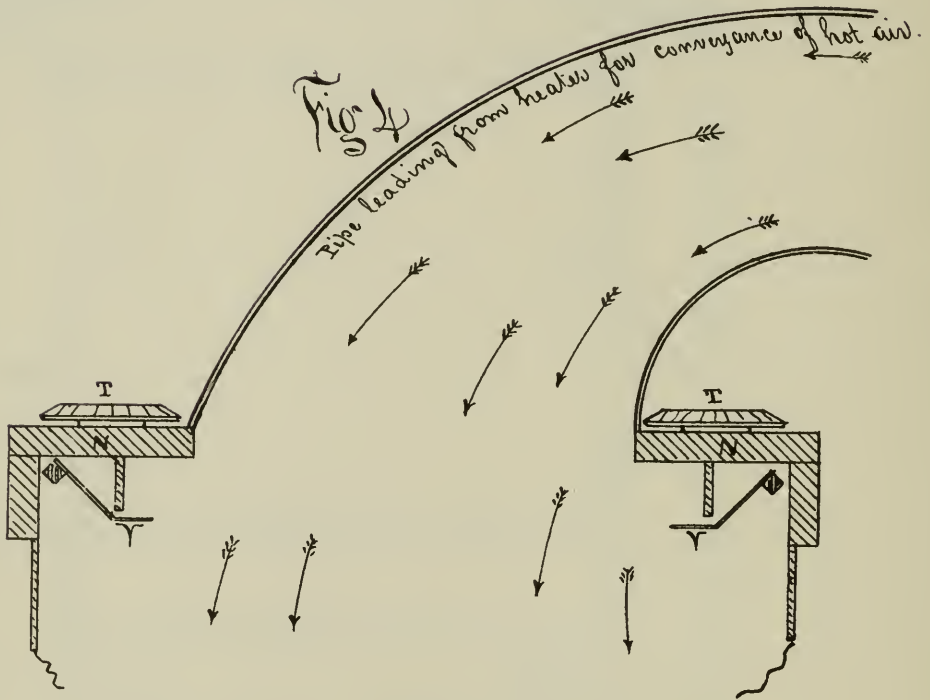
Inventors.

Elisha Foose
Harshaw Pm

Improvement in Driers.

No. 124,944.

Patented March 26, 1872



Woolfor &
W. Kirkman

Elsha Foot
Ph.

and are words and figures following, to-wit:

108

124,944.

UNITED STATES PATENT OFFICE.

Elisha Foote, of East Bloomfield, New York, and Marshall P. Smith, of Baltimore, Maryland.

Improvement in Driers.

Specification forming part of Letters Patent No. 124,944, Dated March 26, 1872.

We, Elisha Foote, of East Bloomfield, in the county of Ontario and State of New York, and Marshall P. Smith, of the city of Baltimore and State of Maryland, have invented certain Improvements in those Drying Machines in which the articles to be dried are subjected to a current of air artificially heated, of which the following is a specification:

This invention relates to a new mode of supplying the heated air; and consists of introducing a blast of hot air into the upper portion of the chamber, causing it to traverse the same and descend through or around the platforms containing the drying substances, and finally to escape at the lower portion of the chamber.

Although applicable to other descriptions of drying-machines, this improvement is especially useful in that class which consists of a series of platforms rising or falling in a vertical chamber. When such machines are constructed so that the air enters from below, and, rising, escapes from the top, if it be desired to cause the air to pass through the meshes or perforations of the platforms in succession, and thereby, in combination with a falling motion of the platforms, secure the advantages of an increasing heat and dryness, or, in combination with a rising motion of the platforms, effect a gradually decreasing heat, it will be necessary to make the platforms to fit the chamber closely; for if a space be left in the sides through which the air may pass, it will naturally seek the more unobstructed channel of escape, and all gradually increasing or decreasing heat processes be frustrated; and, further, if heated air be permitted to escape before it has absorbed a considerable quantity of moisture, (and this will be the result if the air is not retained a sufficient time in contact with the fruit,) a very great waste of heat and power will be sustained. When such close fitting platforms are employed, the fruit or vegetables must be so distributed as to allow spaces or interstices between the pieces to facilitate the upward passage of the air; or else a blast of sufficient power to force its way through the layers of fruit must be employed.

To correct these evils is the main object of this invention, and is accomplished, as before stated, by reversing the usual process, introducing the heated air at or near the top of the chamber, causing it to descend and traverse the same, and finally escape from the lower portion thereof. By this means the hot dry air collects around the upper platforms, distributes itself over the surfaces of

the fruit or vegetables, and descends only so fast as it is forced down by the volume of fresh air which is furnished by the blower or fan. It is therefore held for a longer time in contact with the drying-substance, and far more thoroughly saturated with moisture than is practicable by the usual methods; and, further, by this plan it is not necessary that the platforms should fit the chamber closely, for, as no means of escape from above are provided, the air will descend through the chamber in strata of uniform but gradually decreasing temperature, through which the rising or falling platforms will pass.

In the drawing hereunto annexed is shown the method of applying this invention to the vertical screw-drying tower of Marshall P. Smith, patented September 13, 1870.

Figure 1 is a vertical longitudinal section through line *a b*. Fig. 2 is a vertical cross-section through line *c d*, showing the flues P and P¹. Fig. 3 is a horizontal transverse section through line *e f*. Fig. 4 shows the upper portion of the chamber and the mode of introducing hot air through pipes into the top. Fig. 5 shows the arrangement of coupling the flanges V V and S S.

A is a rectangular brick chamber, forming foundation for the framing and machinery of the drying chamber above, and containing the heating apparatus, which may be of any of the kinds in ordinary use; but the drawing shows an arrangement for heating the air, devised by Marshall P. Smith, and for which he has applied for letters patent. It will be found most convenient to locate this chamber in the cellar of the building, so that the manipulation of the fruit may be on the ground floor. The side walls of this chamber should be about twenty inches thick to allow space for the flues P¹ and afford a firm foundation for the screws. The end walls can be nine inches thick. This chamber is tightly covered with one or two sheets of boiler or cast iron, G, and from the upper part of the side walls proceed two flues, P¹, which communicate with two vertical flues, P P, situated on the sides of the chamber between the screws. A² A² are 3x12 inch joists, forming part of the framing of the vertical tower. P³ is the outside casing of the tower, and P⁴ the zinc or iron lining of the interior. This mode of construction provides a smooth polished surface for the interior of the tower, makes a strong and substantial structure, and furnishes a space or flue, P, for the conveyance of heated air, at once simple, economical, and effectual. M is a plating of timber resting upon the brick foundation, upon which the sockets of the screws are bolted, and into which the upper framing is mortised. The zinc lining over this flue P is carried only to the point P⁵, leaving an opening through which the heated air enters the chamber. N is a heavy timber framing which supports the upper ends of the screws. T T are bevel-gears, which engage with other bevel-gears and which impart simultaneous motion to the screws D D. Q is the cover of the drying tower, which fits closely; and J J are platforms or trays,

resting in the threads of the vertical screws. W is the upper opening and X, the lower opening, through which the platforms are entered or discharged. Through the lower opening, or by others similarly situated, the saturated air escapes from the chamber. The upper opening W is provided with a close fitting door, X², which drops down behind the trays as they are withdrawn, and the covered channel Y may be used to receive the tray until the door X² is closed, and prevent the escape of the heat.

To operate this machine on the principle of a gradually-increasing heat and dryness, the flanges S S are dropped until their outer edges rest upon the timber M. The platform is then entered, raised by the flanges S S, which press it against the lower end of the thread of the revolving screw, as shown in the drawing, until it is engaged. The flanges are then dropped ready to receive other trays, which follow each other at regular intervals. The trays are slowly raised by the screws, encountering the descending current of air as they progress, until they arrive at the upper end of the thread of the screw. They are then lifted by the flanges V V, as shown in the drawing, and removed from the chamber. These upper flanges V V, as well as the lower flanges S S, are moved by levers coupled together, as shown in Fig. 5. Should, for any purpose, it be desired to reverse this process and dry the fruit or vegetable by a gradually decreasing temperature, the trays will be entered at the top and withdrawn at the bottom.

The preceding specification describes the method of applying this improvement to the vertical-screw drier as generally constructed; but in some cases it may be desirable to dispense with the brick foundation chamber, and to place the heater on the top of the drying chamber. In this case the side flues P would not be used, and the base timber M would be made heavier, so as to support the superstructure, and a frame chamber should be placed on or near the top to contain the heater. This chamber should also be lined with sheet-zinc and cased outside to prevent loss by radiation. The cover Q should be removed, or an opening made there to allow the hot air to enter. There are difficulties of construction in this arrangement which counterbalance the advantages gained, and we prefer in such cases to heat the air in a separate adjoining chamber near the top, and convey it into the drying chamber by pipes, as shown in Fig. 4.

As before stated, it is not necessary that the platforms should fit the chamber closely, nor that they should be moved by screw mechanism; and we reserve to ourselves the right to apply the process of a descending column of heated air to all other descriptions of drying machines, whether for fruit, vegetables, grain, wool or any other purpose.

Having now described our invention, what we claim as new and desire to secure by Letters Patent, is—

1. The mode of supplying air to drying machines by introducing it at or near the top or upper portion of the drying chamber, causing it to descend through or around the platforms or trays containing the drying substances, and finally to escape from the lower portion of the chamber, in the manner and for the purpose substantially as described.

2. The process of drying animal and vegetable substances by placing the same on rising or falling platforms and exposing the same to a descending current of heated air, substantially as described.

3. The flues P P, and flanges S S and V V, when used in combination with a descending current in the drying chamber, substantially as described.

ELISHA FOOTE.

MARSHALL P. SMITH.

Witnesses :

W. W. WOOLFORD,

JAS. W. KIRKMAN.

109 (United States Letters Patent Number 134,528, dated January 7th, 1873, for an improvement in fruit driers issued to Alfred Edwards was here introduced in evidence by the defendant, were read to the Jury, and were marked Defendant's Exhibit 9, and are in words and figures following to wit :

UNITED STATES PATENT OFFICE.

Alfred Edwards, of New Haven, Connecticut, Assignor to Alfred R Edwards, of Chicago, Illinois.

Improvement in Fruit Driers.

Specifications Forming Part of Letters Patent No. 134,528, Dated January 7, 1873.

To all Whom it May Concern:

Be it known that I, Alfred Edwards, of New Haven, in the County of New Haven and State of Connecticut, have invented a new Improvement in Apparatus for Drying Fruit; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear and exact description of the same, and which said drawing constitutes part of this specification, and represents, in —

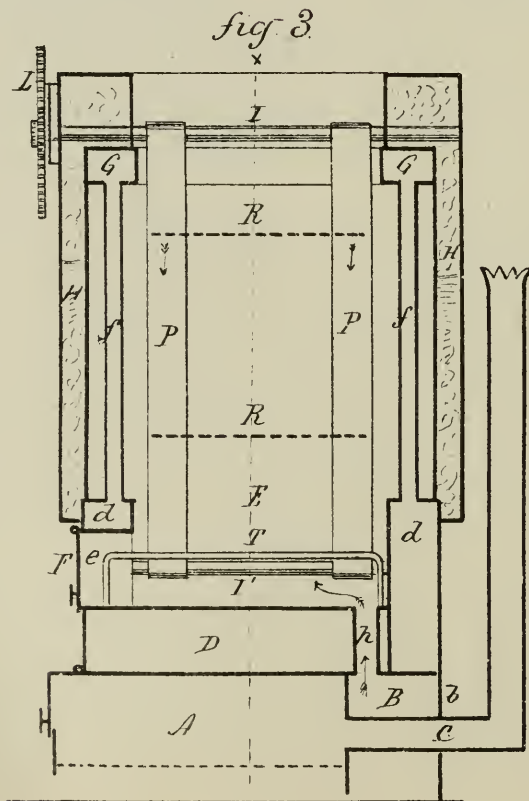
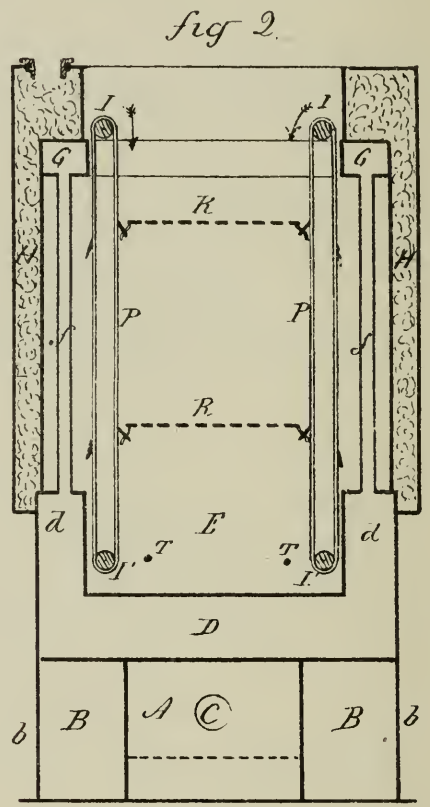
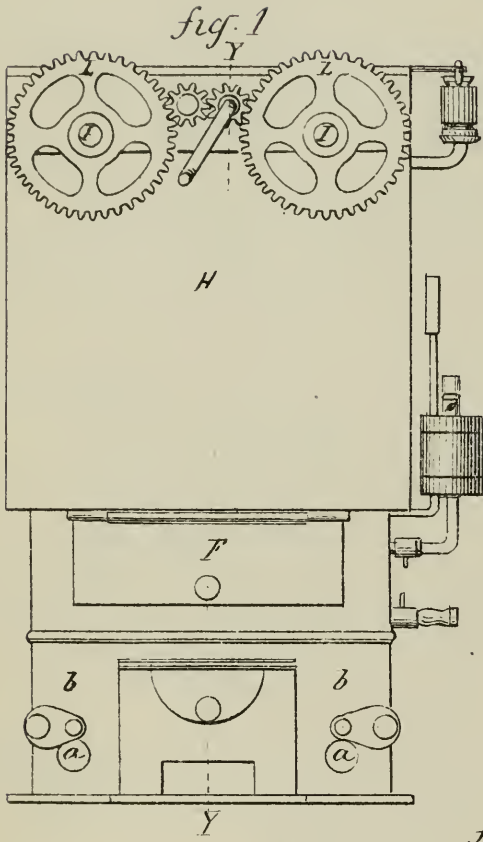
Figure 1, a front view; Fig. 2, a vertical central section on line *x x* of Fig. 3; and in Fig. 3, a vertical central section on line *y y* of Fig. 1.

This invention relates to the construction of an apparatus for the drying of fruits; the object being to facilitate the process so that the fruit is thoroughly dried for preservation in a few moments of time; and it consists in a drying-chamber provided with vertical endless bands, or their equivalents, carrying plates from the top

Fruit Driers.

No. 134,528.

Patented Jan. 7, 1873.



Alfred Edwards
Inventor

Witnesses.

H. Sherman

By [Signature]

downward through the said chamber, upon which said plates, the fruit to be dried is placed, and in which chamber a constant circulation of hot air generated from a steam of hot-water heated surface is maintained, which dries the fruit while the said plates are passing from the top to the bottom; the construction of the said apparatus more fully appearing in the following description:

A is the fire-box, within which the fire or suitable heating apparatus is placed, upon either side of which is an air-chamber, B. The gas and smoke pass from the fire-chamber through the flue C or otherwise, the said air-passage extending to the rear and around the fire-box, as seen in Fig. 3. An outer case, *b*, incloses the fire-box and forms the said chambers.

Openings *a* are made for the admission of air into the said chambers. Above the fire-box, a boiler, D, is arranged to receive the water to be heated; the sides extending up, as at *d*, inclose the lower part of the chamber E, through one side of which an opening *e*, is formed, close by a door, F. Above the boiler and near the top of the chamber E the upper part or steam section of the boiler G is arranged, corresponding in form to the part *d*, and surrounding the chamber E in like manner, and this is connected to the boiler below by numerous tubes, *f*, which maintain a constant heat around the chamber E. The upper parts of the boiler and tubes are inclosed by a chamber, H, filled with a non-conducting material to prevent loss from the heat within. The chamber E, open at the top, is heated from the boiler, and a circulation maintained of heated air, the air passing through the chambers B heated by the fire-box, thence through an opening, *h*, into the chamber E. Upon opposite sides of the chamber E at the top a shaft, I, is arranged, to which a revolution is imparted by gears L attached upon the outside and made to revolve in opposite directions. A similar shaft, I', is placed at each side at the bottom and around these endless bands, chains, or equivalent devices, P, are arranged to traverse downward, as denoted by the arrows. On these bands arrangement is made for the attachment of open or perforated plates R, as seen in Fig. 3. These are placed in position upon the bands at the top, the fruit to be dried laid loosely thereon; then, the bands moving slowly, the plates thus introduced pass slowly down through the chamber E; the air circulating freely through the plates and fruit thereon, completely dries the fruit by the time it has reached the bottom. At the bottom opposite the opening *e*, bars T are arranged upon which the plates strike, the band passing on and leaving the plate on the said bars; then the door F is opened and the plate with the dried fruit removed; and so continuing, the plates being successively placed in at the top with the green fruit, passing down through the heated chamber, and removed when dried.

The heat being as great as the fruit will bear and not cook, and a constant circulation maintained, the passage down occupies but a

few minutes, and is sufficient to thoroughly dry the fruit.

The quantity of air admitted may be regulated at the openings.

The usual attachments for steam boilers should be applied for the inlet of water, escape of steam, safety, &c.

Instead of water in the boiler, live steam may be admitted from other sources, the fire serving to heat the air and superheat the steam. I, however, prefer water in the boiler, as described.

I claim as my invention—

The chamber E with a vertical steam or water heating apparatus, provided with the shafts I I' and endless bands P, or their equivalents, arranged to receive and carry the plates R, and constructed for the flow of heated air into and through the said chamber, in the manner and for the purpose described.

Witnesses:

ALFRED EDWARDS.

A. J. TIBBITS.

J. H. SHUMWAY.

110 (The defendant here rested.)

JOHN W. CASSIDY re-called in Rebuttal on behalf of the Plaintiff testified as follows:

MR. MILLER. Do you recognize the drawing I now show you?

A. I do. I dictated it to Mr. Wood, who made it for me in May, 1874.

MR. MILLER. I now offer it in evidence to show the date of the invention.

MR. WHEATON. We object to their coming in now to show the date of the invention. That was a part of their original case. They are bringing in matter that we are not allowed come in and contradict.

THE COURT. Your objection to it is in regard to it not being offered in the first place?

MR. WHEATON. Yes sir.

THE COURT. Then would it not be proper to show the date of the invention?

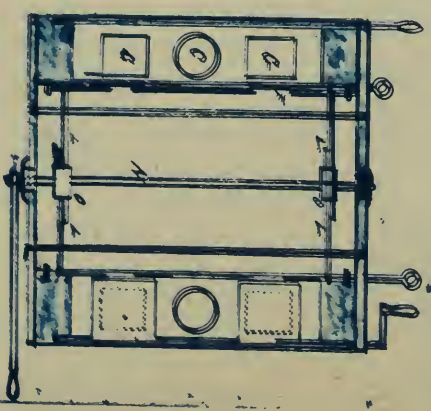
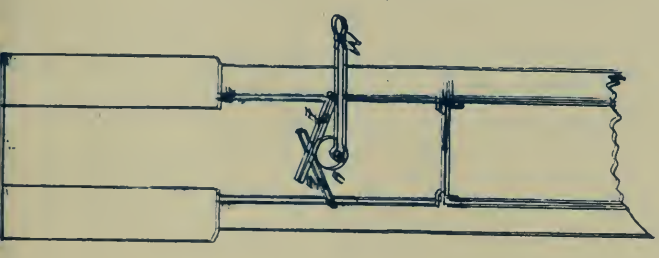
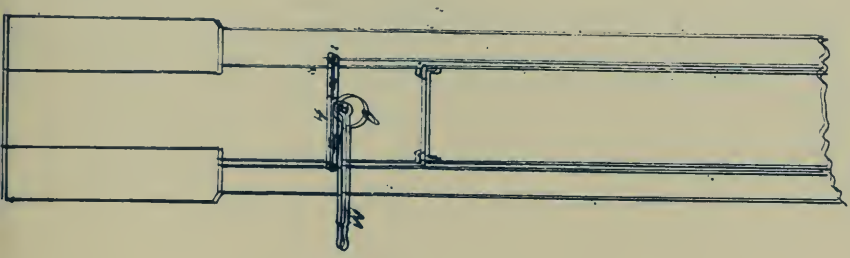
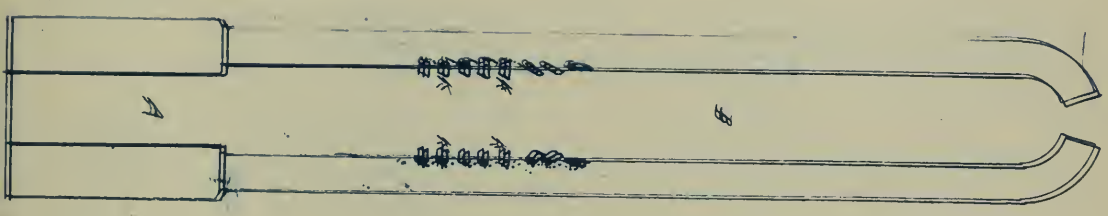
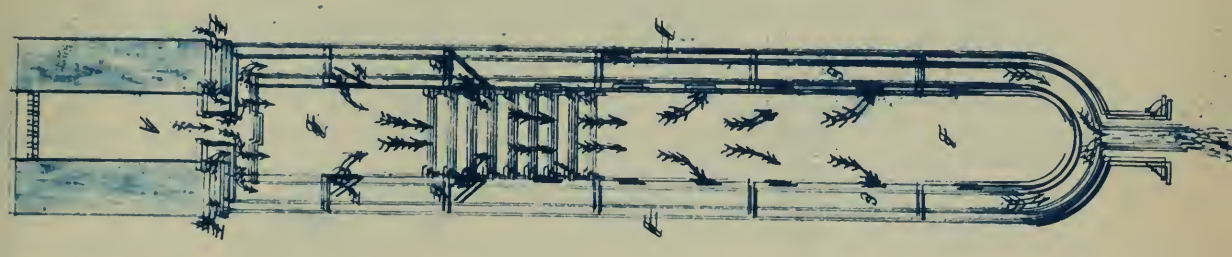
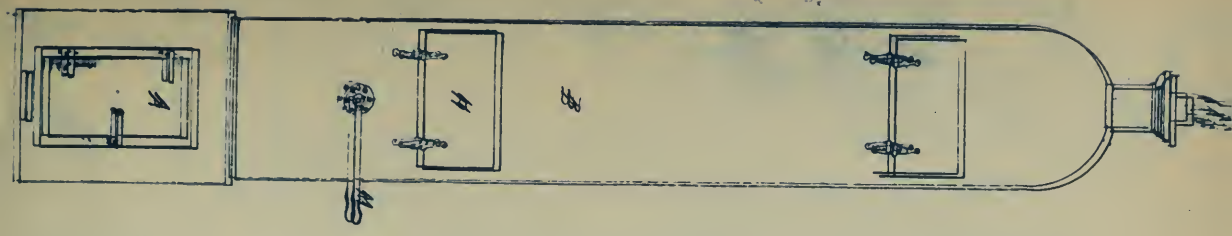
MR. WHEATON. It is a part of their main case.

THE COURT. I will allow the testimony.

Exception No. 8.

To which said ruling of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

(The drawing is marked Plaintiff's Exhibit A in Rebuttal) and the following is a blue print copy thereof.



Design and drawings
 made by 1874
 W. W. Casady
 H. F. Williams
 Boston, Mass.

Assembled by the Editor
of the Journal of the
Royal Society of Medicine

112 MR. MILLER. Explain to the jury the mechanical device delineated in the drawing.

A. That represents a dry chamber showing it with trays with the chamber moving upwards. Here is the bottom and the furnace is underneath here. The trays are inserted in here just the same as in the model exhibited with the gravity catches. These drop out and run the trays up step by step, four, four and a half and five inches at a step. They are filled in until the chamber is full, and removed from the top. Here you will see a device of the catches. Some of the catches are standing horizontally, some are in and some are pressed back. This chamber has two posts on each corner, four stationary ones and four movable ones, the same as in that (pointing to Plaintiff's Exhibit 2). The movable posts were moved up by mechanism a step and then reversing it they were moved back the same distance in order to catch a new tray of fruit. When a new tray was inserted and the fruit was properly dried they had to have a certain amount of heat before they moved it again. The mechanism threw that up a step. Each tray from the bottom to the top moved all together, the same as is shown there (pointing to Plaintiff's Model Exhibit 2).

Q. Whose idea was embodied in that drawing?

A. Mine. I got up that idea about the latter part of March or first of April, 1874.

The first thing I did after conceiving it, I made a crude draft of it, and submitted it to an architect who drew this, and I instructed him—I stayed with him all the time he was drawing it and from this originated my patent. This was placed in the agency of the Patent Office, Mr. Dewey's, and from this device my patent
113 was got out. The device shown in this drawing is the same thing as the device shown in my model Exhibit 3, so far as lifting the trays is concerned. My first idea was to use gravity catches. I built a dryer after conceiving this invention with gravity catches. That was the drier that was burned. When I built again I substituted a spring catch. The gravity catch gets gummed up with fruit, and a very little friction, the weight not being heavy enough, they will not come out in their proper place, the result would be that three or four of the catches would be on one side and it would throw your trays this way or that. To facilitate the work I added a spring catch which was not liable to get gummed up. In order to repair the gravity catches I had to let the heat go down, so as to get inside the chamber. With the catches I now use I need not let the fire go down. If a spring breaks I can pull them out with a pair of forceps and put in another in two or three minutes, and the trays are so adjusted I can remove them at any point to adjust that catch and work right along without any trouble. I have a drier on my place that I have used for ten consecutive years and I do not think that it averaged one

spring a year that broke.

Q. I find in your patent this statement. "Catches which would fall out by gravitation might be substituted for the springs in some cases." Why did you put that statement in your patent?

A. I had invented it and wanted to cover the ground. I thought that spring catches were better in operation than gravity. The first thing I did after getting this drawing made, I took it to Mr. Dewey, the patent agent, and had a caveat filed and in process of time, after I had found it a success, I applied for a patent.

114 Q. Are you familiar with what is known as the Button Dryer?

A. I built a couple of them, although I did not know there was a Button on the face of the globe.

Q. When did you know it?

A. In 1874.

Q. Where did you build it?

A. Petaluma.

Q. And it operated on the principle of this Button dryer?

A. Yes sir.

Q. Is your device an improvement over the Button device with regard to lifting the trays?

A. I think it is a material improvement, as I built two that represent my first one—Exhibit 3—I thought in order to avoid the catches not flying out, and the gum that gets in there we would simply use one spring in each corner, and insert a tray at the bottom and raise it one step, and it would rest upon four springs or catches. Then our trays were made with ears or lugs on the corners about four inches high, so the next tray that came in lifted up the tray already in and the last one we put in rests on those catches. The last tray rested on the catches and every tray on the top rested on the tray below until we got the chamber full. Nothing could be taken out except you took out the top. While in my dryer, Exhibit 2, this tray rests on the first here, and when that is moved up it rests there.

Any tray at any place could be taken out or inserted in any place in the whole dryer from top to bottom. There is a difference in fruit. Some kinds dry very rapidly. Some take twice as long. Fruit is apt to come mixed up. Very often the trays when half way or a quarter are sufficiently dry to take out. In order to save the fruit from being burned up it is necessary to remove it,

115 or you can take out part of it. I often take it out four springs high. In the Button dryer the different varieties of fruit have the same drying qualities as in that. You have fruit that will dry when you get half or quarter way up. To retain a sufficient amount of heat to dry that fruit, it would naturally spoil the fruit that was in here, and you could not remove it and it would have to go to the top. I found in running this I probably lost quite

a large percentage of the fruit that should all come out good. I found these defects in the dryer I made like the Button dryer. I abandoned that dryer, could not use it.

Q. Do you understand this model of the Smith dryer?

A. Yes. I have read the patent. I understand he puts in four vertical screws running from the bottom to the top of the chamber. These screws are all turned by mechanism on the top, so that they all work uniform. A third of a screw is on an incline, if it is not it could not be a screw. You take a screw with caliber strong enough to sustain the weight of a ten foot chamber, and it would naturally have to be two or two and a quarter inches in diameter. The thread would have to be square, and would have to be cut as deep as a quarter or three-eighths of an inch to make it safe to raise the trays. The screws are on an incline. Every one has the same pitched in the same way. In raising that it pitches the tray out. In putting a tray in here it is a hard matter in order to have those screws exactly alike to shut that tray in. Even if those trays all went up perfect, and they only have a quarter inch bearing on each side, the expansion and contraction of metal and wood would naturally throw them one in way of the other so that the trays could not be worked satisfactorily. If the contraction or expansion of the wood should throw it a quarter inch it would let all the trays
116 down. If it contracted a quarter of an inch you could not get the trays in because they have to be made a close fit. You could not leave a half an inch the same as in those catches.

There is no bother with contraction or expansion on there. Again a screw ten feet long with a weight in there of eight hundred or twelve hundred pounds, bearing on this incline all the time with the heat softening the iron, it would expand. That would naturally bend and let them down. There is another serious objection. The cost of those screws would amount to about four dollars a foot for every foot you came up it would be four dollars a screw, saying nothing about the mechanism at the top.

L. W. SEELY, re-called on behalf of the Plaintiff, testified as follows:

MR. MILLER. Q. Have you examined the Button patent in evidence here?

A. I have. I think I understand it. I understand the model in evidence representing the Button device.

Q. Explain to the Jury the difference between the device shown in the Cassidy patent and that shown in the Button patent and model in regard to the device for elevating trays?

A. The Button Patent consists of a stack having beneath it a furnace for supplying hot air for the interior.

At the bottom of the stack is the table which is arranged to move vertically for a limited distance. In each corner at the lower end of the stack are four spring catches. The trays are put

in at the bottom and are elevated by the vertical movement of this table. As they rise each is caught by the spring catches of the bottom and supported by it. As other trays are put in the column of trays continues to rise until the drier is filled, when each one is removed successively from the top, and the whole column
 117 being supported by the spring catches at the bottom. In the Cassidy the trays are supported independently upon catches arranged in a series upon vertical posts, and the trays are elevated by the movement of vertical movable posts also, provided with catches having space between them so that the trays in the Cassidy drier are supported independently on one another each upon the four catches at the corners of the driers. In the Button patent the trays rest upon one another and are all supported by the catches at the bottom. When the stack in the Button drier is filled with trays you could not remove a tray excepting the one at the top, because it is necessary to put an empty tray at the bottom and then operate the mechanism for elevating the trays before another one can be removed at the top. The trays in the Button patent rest one upon the other, and the entire column rests upon the four catches at each corner. I think there are four or five catches in the Cassidy device. In the Button drier there are four catches at the bottom arranged horizontally in the same plane. In the Cassidy patent, there is a continuous series of catches on the movable posts, and in stationary posts extending from the bottom to the top. In the Cassidy patent each tray loaded rests upon its own series of four catches. The entire load when the drier is full is distributed throughout the supporting posts. I do not find any such distribution of the load in the Button patent because all the trays arranged one on top of the other rest on these four catches at the bottom.

I have examined the Smith patent, consisting of four upright revolving screws amongst other things.

Q. Take that patent and the model before you and point out the difference between that and the Cassidy device?

118 A. In the Smith patent there are four screws, one at each corner of the drying chamber, and the trays which are elevated by the simultaneous movement of these screws rests in the threads of the screws, and are moved up by the operation of this gearing at the top. The difference between the Smith and the Cassidy device consists of course of the employment of stationary and movable posts or standards each provided with spring catches. I do not find any spring or other catches in the Smith device. The objection to this Smith device would be first, that the screws would take up too much room in the interior of the dryer. I don't know exactly what the proportions are but I understand the dryer to be about twelve or sixteen feet. If these proportions in the model are correct, that screw would be about three or four inches in diameter, consequently

it would take up a great deal of room in the interior of the stack.

Secondly, a screw like that fourteen feet high and three inches in diameter would be exceedingly expensive. Screw cutting is a very expensive process. There is another point a screw is a very excellent device for applying power slowly, but it generates an enormous amount of friction. These trays rest in the threads of these screws. I don't know whether it is in evidence that a dryer like this has ever been used. I have heard no testimony as to that, but I do not believe that it would be possible to elevate these trays by means of these screws without lubrication, and if that screw would be filled with oil, it strikes me that the mixture of oil and wet fruit would not be healthy for the users of it.

The combination of elements specified in the second claim of the Cassidy patent is not in the Smith device or the Smith patent. I do not find the combination in the Button patent. I have heard the testimony in regard to the dryer which has endless chains with lugs upon them such a dryer as that, according to the testimony that I have heard here, would not contain the combination of elements of Cassidy's second claim.

Q. I show you a model of the section of a chain marked Exhibit F, which is supposed to be a section of the Alden endless chain and ask you if you understand that device?

A. Yes.

Q. Would you call those lugs or projections catches?

A. No. I understand a catch to be a device which yields when another body passes over it, and then springs or falls back beneath it. These do not, because if these projections were riveted here solidly, so that they could not move this way and passed up the dryer, and turned around and passed back outside, and came around again inside, and always preserving the same relation to the chain, they will act precisely as they do now. So far as the drawing in that specification shows the device, there is no reason in the world why these catches should fall back, because when they do they are outside of the dryer, and not inside.

The testimony that I heard in regard to the Alden drier was that it was composed of a stack having endless chains which passed up through the drier out through a hole at the top, down on the outside, and in through a hole at the bottom, to the links of these chains were pivoted projections such as are shown here. The only time these projections fall by gravity is when they are outside of the stack. When they are inside of the stack they stand in this position (illustrating.) So far as the description goes there is no reason why they should fall. They might just as well be riveted to this chain solidly, because they are only performing a function when they are inside of the stack. The fact that they fall down by gravity outside has nothing to do with the case, so far as I can see. So far as I can see the falling down of

those pivots on the outside of the doors in the endless chains accomplishes no function relative to the operation of the drier, unless they were in a confined space, and it would save a little room to have them fall down. While they are outside of the drier they are doing nothing of course. I know what the combination is contained in Cassidy's second claim. The elements are, a drier, stationary posts provided with catches, movable posts also provided with catches, and suitable mechanism for elevating the movable posts. I do not find that combination of elements in this Alden drier which has been testified to. I do not find in the Alden drier any movable posts, nor any stationary posts provided with catches nor any catches on any movable posts nor any mechanism for operating any movable posts.

Cross-Examination.

MR. WHEATON. Q. What do you find in the Button patent as a support on which the lower tray is placed which is put into the drier?

A. It rests in a vertically moving table, or as he calls it a frame.

Q. In the Cassidy patent what supports do you find for the lower tray to be placed upon?

A. When the lower tray is put in it rests upon stationary projections.

Q. How do you know whether it rests upon the stationary projections or on the lower projections that are in the movable posts?

A. It might rest on either. The operator can regulate that.

Q. If the movable posts should happen to stand so that its lower catches were a trifle higher than the lower stationary catches then the lower tray of fruit would rest upon those lower movable catches, would they not?

A. Not necessarily, because the operator who is in charge of the machine would place those posts wherever he pleased.

Q. I am assuming that he has done so, and has placed those posts so that its lower catches are just a trifle higher than the stationary catches along side of them, and then put the tray in?

A. Then it would rest on the catches on the movable posts.

Q. In that case what would be the difference in the operation between those lower catches on the movable posts and the movable frame in the Button patent, so far as receiving that lower tray is concerned?

A. So far as one tray of fruit is concerned there would be no difference.

Q. Would that movable frame of the Button patent in that case perform exactly the same function that the lower movable catches would perform in the Cassidy patent?

A. Yes sir. My idea is this, that if the movable standards in the Cassidy patent had but one catch at the bottom it would be the equivalent of the Button patent, but it has a series of catches extending from the bottom to the top.

Q. Then if the lower movable frame in the Button patent is the same as the lower movable catches of the Cassidy patent, for the purpose of receiving the lower tray of fruit and lifting it up, 122 how would the stationary catches in the Button patent which would receive that lower tray of fruit when it was raised up one step compare with the stationary catches in the Cassidy patent which would receive the tray of fruit when raised up one step in his drier?

A. I cannot answer that question. I really do not understand it.

Q. What would be the difference between the stationary catches in the Button patent and the lower set of stationary catches in the Cassidy patent?

A. To what do you refer when you speak of the stationary catches in the Button patent?

Q. I mean the catches which receive and support the lower tray of fruit each time that tray is carried up, while the frame that you speak of is lower down, so that another tray of fruit may be shoved under the one that has just been raised?

A. Those are not stationary catches, they are spring catches.

Q. I simply mean catches that do not move up and down?

A. As I said before I think the four catches at the bottom of the Button patent are the equivalent of the four lower catches of the Cassidy patent, so far as raising the first tray is concerned, one step.

Q. How many catches do you find mentioned in claim two of the Cassidy patent?

A. The claim calls for "Stationary posts K provided with spring catches $n n$ and the vertically moving posts L, provided with the spring catches $n' n'$."

Q. Please count up those catches and see how many of them you make from the claim. What is it called the catches that are on the movable posts?

A. $n' n'$. It mentions two of them that is there are two 123 letters to designate them. The catches on the stationary posts are mentioned by a small $n n$. I find two letters for each in that claim.

Q. Can you give any reason why the combination of devices described in that claim is not filled when you have counted the lower sets of catches in the Cassidy patent, so far as those catches are concerned?

A. Certainly.

Q. Does that claim in terms call for any more catches than is

counted in the lower set, that is, four catches that are indicated by the letters n prime, and four catches that are indicated by the letters n ? Answer from the claim itself, and see if you can find any more spring catches mentioned in that claim than you find by counting the lower set of spring clutches found in the Cassidy patent?

A. Yes, I find spring catches $n n$.

Q. Do you not find spring catches $n n$ in a lower set?

A. You take them horizontally. I took them vertically as they are shown in the drawing.

Q. Does that claim call for them vertically?

A. No it does not, but the claim must be.

Q. Can you make any operative combination if you take that claim and count those four springs vertically, and leave off the spring catch on the other three corners?

A. Certainly not.

Q. What difference does it make, as to the operation of those upper sets of spring catches in the Cassidy machine whether the lower trays are lifted and held by spring catches or not, or whether they are lifted and held by something else?

A. You mean in regard to the upper. The idea in the 124 Cassidy patent is to keep the trays apart and allow the hot air to enter between them, and at the same time support each tray independently on its own series of catches.

Q. Suppose you support a tray independently, say on the third set of catches from the top, you also have a tray supported on the lower set of catches. What connection is there between that lower set of catches which supports the lower tray, and the third set of catches from the top which supports the upper tray?

A. There is no connection at all if you are only using two trays in the dryer.

Q. I am only using that for an illustration. Take the top set of catches in the Cassidy machine. What connection is there between the support afforded by that top set of catches and the support afforded by the lower set of catches in the same machine, when there is an upper tray in the dryer, and a lower tray in the dryer, and none between them?

A. They are both supported independently on their own catches.

Q. What joint action is there between the upper set of catches and the lower set of catches in the Cassidy machine, when there are two trays in the dryer one on the upper set of catches and one on the lower set of catches?

A. There is no joint action between them. The catches are independent.

Q. Now, you understand perfectly well, do you not, that in patent law, to be a patentable combination of devices, there has got to be a joint action between all the devices that comprise that com-

ination?

A. Yes sir, the devices comprised in the combination must co-act to produce a certain result.

125 Q. And if they do not co-act, although they are acting together, it is what is called in patent law an aggregation?

A. Yes sir.

Q. You also understand that an aggregation is not patentable?

A. No sir.

Q. How can you read into that claim this entire series of catches, without making that claim call for an aggregation of devices; instead of a combination of devices, all of which have a joint action with each other?

A. I think in all my experience I never saw a clearer example of a combination than is afforded by this claim.

Q. Just keep to the question.

THE COURT. I think you ought to allow the witness to answer.

A. I have got to take the elements of the claim.

MR. WHEATON. I want him to answer, and not avoid answering, by going off and stating something else.

Q. My question is, how can you read this entire series of spring catches, shown in this model of the Cassidy dryer, without reading into it an aggregation of devices instead of a combination, since you have shown by your testimony that those entire series do not co-act with each other?

A. I did not say the entire series did not co-act. The question you asked me was whether the top catches and the bottom catches co-acted. I said no, they acted independently.

You were supposing that there were only two trays in the stack.

126 Q. What joint action is there between the lower set of catches in the Cassidy machine, and the set of catches next above that lower set, which could not be found between the lower set of catches and the top set of catches?

A. Why if there were only two sets of catches, they would operate in the same way, in exactly the same way, within those limits. If the stack were sixty feet high, and there were only four sets of catches they would still continue to operate in the same way.

Q. In that operation they would operate independently of each other?

A. Now wait. Each one of the series of catches on the stationary posts, and each one of the series of catches on the vertically moving posts, acts independently of the other but the combination covered by the claim—

Q. You need not tell that.

MR. MILLER. I object to this. I demand that the witness be allowed to explain.

THE COURT. I think he should be allowed to explain.

MR. WHEATON. There is one rule of patent law,—

THE COURT. I understand what you are driving at. Some of the questions asked, the witness has stated are somewhat difficult for him to fully understand. He wants to explain what he means, in the answers which he gives to you. I think he ought to be allowed to do so.

MR. WHEATON. Your Honor does not see the force of my objection. I do not interrupt the witness while he is making an explanation of the device of machine. It is the hardest thing in the world to keep a professional expert—I mean no disrespect for the witness, because I think as much of him as any man living—from
127 telling what the patent is for, and assuming in other words, the duties of the Court, and Jury. It is when he is telling what the patent is for, that I break in on him. So long as he confines himself to the description of the device contained in the claim, it is easy for him.

THE COURT. You ask the question in such a way that it seems impossible for him to answer intelligently without giving that explanation. If he can answer it yes or no, I shall instruct him to do so, but if he wishes to make an explanation, so as to give an intelligent answer, I think he should be allowed to make that explanation.

MR. WHEATON: I will state what I am driving at, and what I believe to be correct. I think that the claim of that patent is covered by the lower set of spring catches that is in the machine, that is, the lower set of spring catches in the movable posts in connection with the lower set of spring catches that are in the stationary posts, that is 8 catches altogether.

I think if the patent is valid, that any man would infringe it if he used just the 8 catches. That is all the claim calls for.

In order to show that the claims could not cover this entire set of catches above, I am proceeding to show that there is no joint action between them, and for that reason if that claim included the entire set of catches, from the top to the bottom, or even two sets of series, suppose there was only two sets of catches high, as there is no joint action between those two sets of catches, each act separately and independently of the other, that the claim of the patent in that case would cover an aggregation and therefore it would be void on its face. I am trying to demonstrate two things, first, that the claim does not call for more than those eight catches, and secondly, it can
128 not be read to cover these entire sets without making the claim void.

THE COURT: Go on and ask your questions.

THE WITNESS: The difficulty you put me in is just this. You require me to say from the claim exactly what that covers, and you will not allow me to refer to the specifications or the drawing.

MR. WHEATON: Q. I do not ask you to tell what the claim covers; that is for the Court?

THE COURT: You claim it only covers a certain thing, and you will not allow him to say whether it does or not.

MR. WHEATON: Certainly.

THE COURT: You ought to be fair and allow him to tell what it does cover.

MR. WHEATON: It is for your Honor to tell what it covers.

THE COURT: I think that witness understands. You ask him if the claim covers this, and object to any explanation that he gives that it covers anything else. It seems to me that one would follow the other.

MR. WHEATON: I am very careful not to tell him what the claim does cover. At the close your Honor will instruct the jury what that claim covers. This evidence is for the purpose of instructing the Court, if it needs any instruction, I do not suppose it does, as to the action and operation of those devices.

Q. Please tell me how the two lower sets of catches, those that take the lower tray and those that take the first tray above it, could be joined in a combination with the other devices mentioned in the claim without making those sets of devices as so joined an aggregation instead of a combination?

A. You ask me how the lower series of catches on the 129 stationary posts and the lower series of catches on the movable posts, and the next two sets on the respective posts above them could be joined together without making an aggregation?

Q. That is the substance of it.

A. The ordinary definition of a combination is two mechanical devices which co-act together to produce some result.

In your question you assume a stationary post and a movable post and catches on each. Now if those two devices co-acting produce some result then they would produce a combination. That is just what they do. The movable post raises the tray until it slips over the catch of the stationary post. The movable post then falls back ready to put up another tray. I cannot conceive of a clearer example of a combination than is afforded by your illustration.

Q. You understand that a combination requires not only co-action but joint action?

A. Yes, sir.

Q. The action has got to be different in its nature from the different actions of the different devices added together?

A. Yes, but it has not necessarily to be at the same time.

Q. How is there any joint action between the lower set of catches, counting the eight catches as a set, and the next upper set of catches. What one act do they perform in which they both participate?

A. Now excuse me. You put me in a difficulty again. You include in your question both the movable posts and the stationary posts, making eight catches. You ask me what combina-

130 tion there is between the whole eight catches on both posts.

Q. What joint action?

A. What joint action there is between the whole eight bottom catches on both posts and the next eight catches including both posts.

Q. Yes, what one act takes place in which all these catches participate?

A. Why, they all participate each time a tray is raised.

Q. To what one act do they all participate?

A. Each time a tray is raised. I cannot answer it better than that.

Q. Don't you understand that there is no act performed there in which they all participate?

A. No, sir.

Q. I have a case here decided by the United States Supreme Court—

THE COURT: I don't think you had better discuss these questions as you go along. He says he does not understand you.

MR. WHEATON: I want to use this as an illustration.

THE COURT: You are objecting all the time to his giving a legal interpretation of anything. It seems to me it is a little out of place to read to him the legal view. If that is a matter for the Court it ought to be left to the Court. You understand that is the objection you are making, that you do not want him to legally construe things, yet you are proposing to read him a legal construction of the principles you are asking about.

MR. WHEATON: I am only getting at the facts of this case so as to ask him what joint action he could find there which
131 could not be found in this set of facts. (Here Mr. Wheaton read to the witness the entire decision of the Supreme Court in the case of Adams vs. Bellaire Stamping Co. decided Nov. 16th, 1891. Reported in 12th. Supreme Court Reporter at page 66.) That was a combination of the hinge on the one side and a catch on the other to hold the two parts of a lantern together. You understand the construction of a lantern in that way?

A. I understand it is just like this, hinge here and catch here (illustrating with a watch).

Q. Can you describe any more of a joint action in the two lower sets of devices in this Cassidy machine, than would be found in the case of the hinge and the catch of the lantern for the purpose of holding those two parts together?

A. Yes sir.

Q. Please just do so.

A. There is a certain purpose to be accomplished by the device shown in that invention, and that is, to lift a fruit tray. To do that, the patentee provided four stationary posts, provided with spring catches and four movable posts, provided with spring

catches. The movable posts performed their part of the joint operation, by lifting the trays. They lifted them to a certain height at which time the catches on the stationary posts performed their function, and completed the operation, by springing out under the tray and then holding it. The two things operated together. It was a complete combination, both elements co-acting.

Q. You say that was a complete combination when the lower set of movable catches had received the tray and raised it up so that the first set of stationary catches received it?

132 A. Yes it was a complete combination at that place.

Q. If that combination was then complete at that point how can you bring into the same combination the other catches which were above and which were acting independently?

A. The combination was complete when there was two sets of catches, one above the other. That would make a fruit drier. That would afford room for two trays of fruit. If that combination is complete and operative, it does not make any difference how many trays you put above it. You simply increase the capacity of the machine or apparatus. If I am right when I say two sets of operatives would make a combination, then twenty sets of operatives would also make a combination.

Q. If that combination is complete there, adding another combination above at the same time, and another combination above that at the same time, would simply be adding combinations to each other?

A. Certainly.

Q. Would the second combination of those devices above the first one have any joint action with the lower combination?

A. You must tell me first what you mean by the second combination. I assume as the first combination the stationary post and a movable post each having two sets of catches. That is enough to operate two fruit driers. That would take two sets of catches on each post.

Q. In this machine there is shown two tiers of catches above that?

A. Two or three.

Q. And that would make another combination of the same kind?

A. Not an independent combination. It is all the same combination. You are simply increasing the capacity of the machine.

133 Q. How is there any joint action between this second combination of those elements assuming for a moment that you are right and the lower combination of those elements?

A. I can not distinguish between them. They all act together.

Q. Act together or act at the same time?

A. Act at the same time.

Q. What does this lower stationary set of catches in the Cassidy machine; what office do they perform?

A. They support the fruit tray. They have no other object so far as I know.

Q. While the fruit tray is resting on those four catches what other one of the devices is doing anything with that fruit tray?

A. None of them unless the machine is in operation. Then the other devices come into operation to lift the tray.

Q. When those other devices lift the tray do those lower stationary catches hold it any longer?

A. Of course not.

Q. Is not the work of those lower stationary catches entirely finished as quick as the other devices come into play and lift the tray off from them?

A. The lower stationary catches simply spring out again ready to receive another tray.

Q. What other device in that machine assists those lower stationary catches in holding or supporting that fruit tray?

A. No other device. The fruit tray is supported entirely at one time by those stationary catches.

Q. Does any other device in that machine assist those catches on the stationary posts in doing this work of receiving and sustaining the tray of fruit?

134 A. Yes, the catches on the movable post.

Q. How?

A. Simply because the catches on the stationary posts could not receive the fruit unless it was lifted up above its catches by the movable posts. It assists it to receive. It does not assist it in sustaining it.

Q. Do not the catches on the stationary posts receive that fruit just the same as if it were laid on here by hand?

A. It does at the bottom. In fact I suppose it is laid on by hand at the bottom.

Q. I am speaking about the bottom catches in the stationary posts. Now, if that bottom tray of fruit is put on those stationary catches by hand, and all those catches do is to receive and sustain that tray of fruit, please name another device in there, that assists in either receiving or sustaining that lower tray of fruit?

A. So far as sustaining that lower tray of fruit is concerned there is no other device. There is no other device there which assists the lower catches, they do all the work there. The tray is put in on the lower catches, and the lower catches receive it and hold it. Those lower catches act entirely independent of every other device in the machine at that point.

Q. There is no joint action between them and any other device in the machine is there?

A. No sir, not at that point, but there is just as soon as the operation of the machine commences. I do not understand you again. When the fruit tray is put in, the machine is standing still.

Q. Please explain all of the work that that lower set of 135 stationary catches performs independently of every other device in the machine?

A. The actual lower set of stationary catches perform no work at all except holding the tray.

There is no other device in the machine that assists that lower set of catches in holding the fruit. As far as that is concerned that set of catches might be a solid pin. It need not necessarily be a catch. For convenience it is made in that way.

Q. Then the action of that lower set of catches has nothing to do with any other device in that machine, that is, as a joint action?

A. I would hardly say that. The lower set of catches have a function to perform there. You have your lower set of catches and you put your tray in there in preparation to be raised. I would not like to say that those two devices do not co-act, the device for holding and the device for raising.

Q. In the case of the lantern, where the hinge was on one side, and the catch on the other for holding the lantern together, they co-act, that is, they both assist each other in holding the lantern together, or as you illustrated by a watch, there is a hinge on one side, and the catch on the other and they co-act.

A. I don't believe that is a good combination. It might be said that they co-acted to hold the lid of the watch in its place.

Q. You never have seen any of these dryers operate have you?

A. No sir. I know nothing from actual experience about how those screws in the Smith machine work. I don't know if the Smith machine has ever been in use or not.

Q. And if it was in the machine, you do not know any reason why the screw should not work?

136 A. I simply judge from my knowledge of screws in other machines. I have seen elevators raised in buildings by using a screw in each corner. They have worked very nicely; but they require a great deal of lubrication and generate a great deal of friction. Still they work as perfectly as any machine could work, but very slowly.

Q. Now suppose that the claim of the Cassidy patent should be held by the Court to apply only to the lower set of catches in the Cassidy patent, in that case, would you not find the same combination in that, as was in the Button patent?

A. I should think it was exactly the same thing.

JOHN W. CASSIDY, the plaintiff, re-called on his own behalf.

MR. MILLER. Q. Do you know Mr. Wightman?

A. I know him, not personally, I am not much acquainted with him.

Q. Did you ever have a conversation with him in regard to bringing suits for the infringement of your patent, if so, state what occurred between you?

A. I met him one time and I was anxious to bring suit, but I had not the money to do it, and I thought if I could get him to go in combination with me, I could prosecute the suit. I think that was the proposition I made to him.

Q. What steps have you taken, if any towards advertising your dryer in Sonoma County, so that the farmers of Sonoma County and the people engaged in fruit drying, as a business in Sonoma County, should become acquainted with your dryer?

A. For two or three years I had a full size drying machine
137 at our Horticultural Fair, in Petaluma, running probably from 1882, up. The dryer was on public exhibition in the pavilion as you went in the building, on the right hand side of the main entrance, open to the inspection of any one who went to the fair. Circulars were nailed up at the side calling attention to it. Afterwards I exhibited it by models, at the same Fair.

Q. Was that before the Hunt Brothers built their dryer in 1890?

A. The first exhibit I think of a full size dryer was before they made it. I am not positive, but I think so. I think that was a way back somewheres about 1880. I furthermore advertised in the Petaluma "Argus", which has a large circulation, at different times, several different periods; sometimes a year at a time. Then I caused circulars to be distributed to different Post Offices where I could not find addresses, perhaps several hundred, or may be half, to be left around different points in Sonoma County.

Q. Is there any question but that the old gentleman Mr. Hunt, knew of the existence of your patent and dryer?

A. Not the least in the world. I told him about it. That was at that time—perhaps that was somewheres along about that time, I was at his house. He was excavating and he said he was going to build a dryer house, and he was speaking about the Alden machine. I asked him why he did not buy my patent, my machine. He said "No" he could build a better one. After that he built his machine.

Q. I believe you wanted to make some explanation in regard to the cost of those screws. You can do so if you desire, although I don't think it is very material.

A. I called the attention of the Jury to the fact that it cost \$4.00 a foot. Four screws would be 16 feet, which in a ten-foot dryer would be \$164.00.

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Cross Examination.

MR. WHEATON. Q. Upon what do you base your calculation of the cost of those screws?

A. From the prices of competent machinists. I put them at the size of two and a quarter inch.

Q. Would not a screw $2\frac{1}{4}$ inches through be capable of lifting 20 tons?

A. Most assuredly.

Q. A single screw?

A. I think it would, provided it stood perfectly vertical. My reason for putting in screws enough to lift 80 tons, is in order to get a thread deep enough to hold the edges of the trays. I figure on those screws being turned by threads cut in the lathe.

Q. Have you not seen cast screws?

A. Yes sir. That is the reason why I said you could not put in a cast screw there and have them work, because the friction would be too rough. The reason they would not work as well is that the friction would be too great. I have used a great many of them. I would get a boy with a lever and take cast iron nuts, and it would take me a day and a half to smooth them out. They are very much cheaper, the cast iron is cheaper than the wrought iron, I presume.

Q. You can buy these for four cents a pound?

A. You can not buy one with a square thread, not to be good for anything.

A. After doing all this advertising of your machine in Sonoma county, how many machines of yours did you sell in Sonoma county?

A. Three outside of my own, four. I will qualify that. The three in Sonoma I am part owner in. Half belongs to some partners, and half to me. One I sold to, I disremember who it was. I know they have got it on hand. It was a German. I could not pronounce his name. He lived at that time about a mile in the North West direction of Petaluma.

Q. At the time you were receiving royalties in the East, what were those royalties for?

A. Fruit trays.

Q. In the model that you have presented here, why have you substituted that crank and screw apparatus for the ropes and crank which is described in your patent?

MR. MILLER. I object to the question as irrelevant, immaterial, incompetent and not cross examination, and not properly in rebuttal. All I asked him about was the date of his invention, and these anticipating patents. That is a part of his main case.

THE COURT. Yes, I think so.

MR. WHEATON. He is the plaintiff in the case, and I have a right to cross examine him as often as I please.

THE COURT. That is true but you have had your opportunity.

MR. WHEATON. I did not notice when examining him before he had not used what is described in his patent.

MR. MILLER. You ought to have noticed it, and I say it is not cross examination.

THE COURT. It is not cross-examination.

Ninth Exception.

To which said ruling of the Court, counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

MR. WHEATON. Q. If you claim yours is an improvement over Button's how do you account for the fact, in spite of all your advertising there are so many more of the Button machines sold in Sonoma County, than there are of yours?

A. I presume his must come cheaper.

140 Q. Do you know the price at which the Button machines were sold?

A. I do not.

Q. Then that presumption is more a conjecture on your part?

A. That is all.

Q. Those screw matters, that you spoke of the danger of shrinkage, so that the trays would drop out. What did you intend the Jury to understand would shrink?

A. All iron and all wood has an expansion and a contraction. If the boxes of those journals were set in wood the boxes have a tendency to get loose. That would be one tendency to throw them out of gear. Again, if the boxes were perfectly sound in there there is a contraction on the wood. Take this bar here. Wet it, and it will be very much wider. That would throw the boxes further apart. When it shrinks again it would bring them together. As the wood contracts it brings them together, and as it expands, it would throw them further apart. These side pieces are made of wood. The head piece of the concern would shrink and have an expansion, and the tray would suffer in the same way. Pine will shrink endways as well as redwood. It is not a common thing for ordinary hard wood such as ash, or hickory or maple to shrink endways very much.

Q. If the timber that was on the edge of the tray would shrink edgeways, the timber that would form the machine would be apt to shrink edgeways?

A. Yes sir.

Q. That would keep the relative distances between these two posts the same?

A. You cannot put four screws in there. There are some endways and some sideways, while the endways may remain the same. You see there is a contraction here running with the grain of the wood, and when you take the crossways of the wood, it
141 would be quite a difference. I will say still further, put a

metal plate on top of that, a three and a half foot metal plate, the heat expands metal very much, and cold contracts it. The same thing with the metal. It would probably have the same tendency to throw them out of gear.

Q. Take melted cast iron and pour it into a mold. Is not the amount that it will shrink between being just as hot as it can be in a solid form, and being cold, just an eighth of an inch in 16 inches?

A. I am not acquainted with the foundry business, and for that reason, I can not answer that question.

This closed the testimony in the case, and the foregoing constitutes all the testimony introduced material to the exceptions.

After argument by the respective counsel the Court proceeded to charge the Jury.

Exception No. 10.

Prior to said charge and to the argument of counsel the counsel for defendant submitted to the Court and requested the Court to give to the Jury the following instruction:—

“Any thing that is described in the specifications of the patent and not included in its claims is conclusively presumed not to be any part of the patentee’s invention, and is not, covered by his patent.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

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Exception No. 11.

Prior to said charge and to the argument of counsel the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction:

“The records of the patent office which show the proceedings there had in determining what the patentee might claim as his invention, and ascertaining from them what the patent office consented to allow, and what the patentee consented to accept as the invention to which he was entitled are admitted in evidence.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court, counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 12.

Prior to said charge and to the argument of counsel the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction:

“ In such cases whenever it appears from those records that the officers of the patent office refused to allow a claim as it was originally drawn by the patentee, and that upon such refusal the patentee changed the language of the claim so as to leave out some part of what the claim included as it was first drawn, and that the patent office allowed and the patentee accepted the patent with that part left out of the claim which the patentee had first asked for in the claim as originally drawn, then the patentee is
 143 “ not afterwards permitted to have the matter so left out from the original claim, covered by his patent either upon the ground that it is a mechanical equivalent of what is granted in the patent as issued, or upon any other ground.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court, counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 13.

Prior to said charge and to the argument of counsel the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ If the Jury believe from the evidence that in the original second claim which the plaintiff filed in the patent office he asked to have allowed as elements of the combination of the claim ‘ the vertically moving gosts L, provided with the springs or other catches n ’ and also believe that the officers of the patent office refused to grant the patent with the words ‘ or other catches ’ in the claim, and that thereupon the patentee or his attorney changed the language of the claim so as to leave out the words ‘ or other catches ’ and accepted the patent with these words left out of the claim, then the Jury must not consider that the combination of the second claim covers any combination of devices unless that combination of devices includes *spring* catches among
 “ its elements.”

144 Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 13 1-2.

Prior to said charge and to the argument of the counsel the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ The specifications of the patent when they were first filed in

“ the patent office includes the following language, viz: ‘ Catches
 “ ‘ which would fall out by gravitation might be substituted for the
 “ ‘ springs in some cases.’ The Jury have the right to infer that
 “ the ‘ other catches ’ mentioned in the claim as originally applied
 “ for, and which were stricken out of the claim afterwards, were the
 “ catches which might fall out by gravitation, mentioned in the
 “ specifications, and that those were the very catches that the patent
 “ office refused to permit the patent to cover as a part of the com-
 “ bination of the claim.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby
 145 sign and seal the same.

Exception No. 14.

Prior to said charge and to the argument of counsel the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ A patentee is bound by the claims of his patent and cannot
 “ cover with his patent anything that is not distinctly claimed in
 “ the patent as his invention.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 15.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ If the Jury believe that a skilled mechanic who was acquainted
 “ with the construction and operations of the Alden drier would
 “ know from his knowledge as a mechanic, that he could substitute
 “ for the lifting apparatus of the Alden drier the lifting mechanism
 “ of the plaintiff’s patent without any invention, and that such
 “ mechanic would also know from his knowledge as a mechanic
 “ that when the lifting mechanism of the patent was so substituted
 “ for the lifting mechanism of the Alden drier that it would operate
 “ to do the lifting as it does do it then the Jury must believe that
 “ such substitution did not amount to any invention and should
 “ find a verdict for the defendant.”

146 Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then

and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 16.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ If the Jury believe from the evidence that the so-called Alden drier was a drier which was constructed upon the same general plan as the drier that is shown in the plaintiff’s patent and that it received fruit trays at the bottom, one at a time and carried them up to the top where they were taken from the drier one at a time, and that it was operated by the use of endless chains with mechanism for driving them in the manner described by the plaintiff while he was a witness upon the stand and if the Jury also believe from the evidence that the only substantial difference between the said Alden drier and the drier described in the plaintiff’s patent consisted in the substitution of the spring catches in the stationary posts and the vertically moving posts with the spring catches in them, for the movable chains and lugs with the mechanism which operated them in the Alden drier, then the Jury should conclude that the difference between the two driers consists in the substitution for the chains and lugs of the Alden drier the spring catches and posts shown in the plaintiff’s patent and should also conclude that such change amounted only to the
 147 “ substitution of one set of mechanical devices for the devices
 “ used in the Alden drier, and that such substitution did not
 “ constitute a patentable invention and that for this reason
 “ the second claim of the plaintiff’s patent is void for the reason
 “ that it does not constitute any patentable invention.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 17.

Prior to said charge and to the argument of counsel the counsel for the defendant submitted to the Court and requested the Court to give to the jury the following instructions :

“ There has also been introduced in evidence a patent on fruit dryers that was granted to Joel O. Button on the 22nd day of September, 1874. It was applied for on the 20th day of July, 1874.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 18.

Prior to said charge and to the argument of counsel the counsel for the defendant submitted to the Court and requested the Court to give to the jury the following instruction :

148 “ If the jury believe from the evidence that catches with-
 “ out springs were described in the so-called Button patent,
 “ which was issued prior to the time that the plaintiff ap-
 “ plied for his patent and that the catches without springs were
 “ operated in the machines made under the Button patent in the
 “ same way, as were the spring catches used in the patent sued on,
 “ and that such catches in the Button patent when so operated pro-
 “ duced the same kind of results as were afterwards produced by the
 “ spring catches in the patent sued on, then the jury should find that
 “ it was no infringement of the plaintiff’s patent to use the catches
 “ without springs in the same kind of a combination as they were
 “ placed in when they were used in the machines made under the
 “ Button patent.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 19.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the jury the following instruction :

149 “ The jury are instructed that if the catches without springs were
 “ used in the so-called Button patent prior to the time that the plain-
 “ tiff applied for his patent and were so used in the Button patent
 “ for the same purpose and in the same way that the plaintiff used
 “ them in his invention, the fact that in the Button patent only one
 “ set of the catches were used while in the dryer described in the
 “ plaintiff’s patent several sets of the catches are used, would
 “ not amount to invention withing the meaning of the
 “ law.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal, and the Court does hereby sign and seal the same.

Exception No. 20.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ The Jury are instructed that the mere multiplication of parts or combinations for the purpose of repeating the same operations that, a single one of the parts or combinations produces does not constitute any patentable invention.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court, counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 21.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

150 “ If the Jury believe from the evidence that there was described in the Button patent a table or frame on which the lower tray was placed and that that table or frame was moved up and down by proper mechanical devices and that when it was so moved upwards it carried the tray with it, and that there were catches which receded to allow the tray to pass upwards and which as soon as the tray passed then fell back under the edges of the tray in the same manner as the catches of the plaintiff’s patent are forced back by the springs under the edges of the tray that pass them in going upwards, and also believe that the table of the Button patent returned to its downwards position to receive another tray as soon as it had delivered the first one to the stationary catches, and if the Jury also believe that this operation of the Button patent could be constantly repeated until the stacks of trays filled the dryer, and that the upper tray could then be removed from the drier through an upper door or slide and another tray placed in the bottom as often as the upper tray was so removed, then the Jury should conclude that the Button patent is a full anticipation of the second claim of the plaintiff’s patent, unless the Jury believe that the spring catches are substantially different from the catches that were in the Button patent.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court, counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 22.

151 Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ If the Jury believe from the evidence that the several sets of spring catches described in the plaintiff's patent were each operated independently of the action of each of the other sets of spring catches, and that there was no joint action between the lower set of spring catches and the other set of spring catches that were above them, then the Jury must conclude that there was no patentable combination between the lower set of spring catches shown in the plaintiff's patent and the sets of spring catches above them.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 23.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ If there is no joint action between the lower set of spring catches shown in the plaintiff's patent and the other sets of spring catches above them then the second claim of the patent is invalid if it includes in its combination any of said spring catches that are above the said lower set.”

Which said instruction the Court then and there refused to give as requested.

152 To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court hereby sign and seal the same.

Exception No. 24.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction:

“ If therefore what the plaintiff had made prior to the application for the Button patent did not include spring catches then it did not include the combination of the second claim.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there excepted and hereby tenders this its bill of exceptions to

the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 25.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ In this case the plaintiff’s patent does not cover the whole machine. He therefore can not recover as damages the profits that he made by making and selling the driers as an entire machine.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception. No 26.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ The plaintiff has not proved that there was any established license fee existing between him and the people of California during the time in which the defendant was either making or using its fruit driers. He is therefore not entitled to recover any license fee as damages.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exception to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 27.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ Where the license fee or royalty is fixed by the patentee for a right to use all the inventions that are covered by all of the claims of his patent in cases where the patent has more than one claim, and it is shown that the defendant has infringed only a part of the claims of the patent, in such cases the plaintiff cannot recover as damages for the infringement of one claim the royalty or license fee which he has fixed as the price of the invention covered by all of the claims of the patent.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 28.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ If the plaintiff sold the right to use the patented inventions while the patent had eight or more years yet to run at a given price, that fact does not of itself prove that he could sell the patented rights for the same amount in later years when the patent had less than one-half as many years to run.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 29.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

155 “ Where a part of the patented inventions only are used by an infringer the plaintiff is bound to prove the damages occasioned to him by the infringement, and if he fails to prove the amount of such damages by reliable testimony he can recover only nominal damages.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 30.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ Where the patent is for an improvement, and not for an entirely new machine or contrivance, the patentee must show in what particulars his improvement has added to the usefulness of the machine or contrivance. He must separate his results distinctly from those of the other parts, so that the benefits derived from it may be distinctly seen and appreciated.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

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Exception No. 31.

Prior to said charge and to the argument of counsel the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ The patentee must, in every case give evidence tending to separate or apportion the defendant’s profits and the patentee’s damages between the patented features and the unpatented features, and such evidence must be reliable and tangible, and not conjectural or speculative ; or he must show, by equally reliable and satisfactory evidence, that the profits and damages are to be calculated on the whole machine, for the reason that the entire value of the whole machine, as a marketable article, is properly and legally attributable to the patentable feature.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No 32.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ In this case it is admitted that the first claim of the patent was not infringed, As the plaintiff has not introduced any testimony tending to show what the value of the combination covered by
 157 “ the second claim was, nor any testimony tending to show
 “ the amount of any damages suffered by him by the infringement of the second claim, nor any data by which
 “ any such damages could be estimated, nor any established license fee or royalty for the use of the combination covered by the second claim, he can recover nominal damages only for the infringement of the second claim of the patent.”

When said instruction the Court then and there refused to give as requested.

To which said refusal of the Court counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

Exception No. 33.

Prior to said charge and to the argument of counsel, the counsel for the defendant submitted to the Court and requested the Court to give to the Jury the following instruction :

“ If the Jury find for the plaintiff on the other issues in the case they must find nominal damages only.”

Which said instruction the Court then and there refused to give as requested.

To which said refusal of the Court, counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal and the Court does hereby sign and seal the same.

158 *The entire charge of the Court to the Jury was as follows :*

United States Circuit Court, Northern District of California.
Tuesday, December 29, 1891.

THE COURT. “ *Gentlemen of the Jury* :—You have listened very patiently and attentively for several days to the testimony of witnesses in this case, and also to the argument of the counsel to-day.

You are the sole judges of the weight and credibility to be given to the witnesses who have testified on this trial. You are of course to take into consideration the interests, if any, which they may have, in determining the weight and credibility of the respective witnesses. You are the judges of the facts. The disputed questions of fact are to be determined by you under the law that may be given to you by the Court.

There are three questions involved in this case to which your attention has been called by Counsel ; first, as to whether or not the plaintiff's patent contains an invention ; second, whether there has been any invention ; and third, if there has, the amount of damages that are to be given.

Of course in the investigation of this case, if you should find there is no invention, that ends the matter, and there is nothing further for you to consider at all, except to find a verdict in favor of the defendant. If in the examination of the second question under instructions that may be given you, you should find there was an invention, you should then consider the question of infringement, and if there has been no infringement you should

159 stop there, all there would be for you to do would be to find a verdict in favor of the defendant. If on the other hand you should find there has been an invention and infringement, then it will become necessary for you to consider the third question, that of damages.

Several instructions have been prepared by counsel, some of which I will read as asked by them, and in course of giving you instructions on these several points not only confine myself to instructions asked by counsel, but some of my own.

On the part of defendant as asked by him I instruct you that before any inventor is entitled to receive a patent for his invention he must file in the Patent Office a written description of the same in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it appertains to make and use the same; and in the case of a machine, he must explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he must particularly point out and distinctly claim the part, improvement or combination which he claims as his invention. This description and claim afterwards become the specifications which are a part of the patent.

No patentee can cover any invention by the claim of his patent which he has not described in the specifications which precede the claim. Any claim of a patent that covers any invention that is not described in the specifications is absolutely void.

A patent never covers any invention that is not included in its claims. The patent can cover nothing that its claims do not cover, no matter how much more may be described in its specifications.

160 The claims of a patent should never be construed to cover more than what the patentee invented. They should not be construed so as to give him any thing more than he invented, and they should not be construed so as to take from him any thing that he did invent, providing that is included within the terms of the claims.

The claim is the measure of the patentee's right to relief, and while the specifications may be referred to, to limit the claim, it can never be made available to expand it.

The defendant asserts in this case that the plaintiff's patent is void for the alleged reason that it does not cover any patentable invention. Defendant asserts that plaintiff did not invent the entire fruit dryer shown in the patent, but that there were earlier fruit driers of the same general kind, and which included the same general principles of operation and also included the same general kind of combinations as the combination included in the second claim of the plaintiff's patent. That all that the plaintiff did was to make such changes in the earlier fruit driers as any skilled mechanic acquainted with that class of ~~fruit~~ driers and their operations could make by virtue of his knowledge of his business as a mechanic, and without the exercise of any invention whatever.

The defendant in this connection has introduced in evidence several patents, which are earlier in date than the plaintiff's patent.

Testimony has also been introduced showing an older drier which is called the Alden drier.

The defendant asserts that some of the older driers described in the prior patents, and in the evidence, operated upon the

161 same principle as the drier which is described in the plaintiff's patent. It also claims that those older driers contained substantially the same combination of operative mechanical elements as is covered by the second claim of the plaintiff's patent.

Whether these things are so or not are questions of fact that the jury are to decide, under the instructions of the Court, as to the law bearing upon them.

Unless the plaintiff was the original and first inventor of the combination covered by the second claim of his patent the claim is invalid and the defendant will be entitled to a verdict.

If the plaintiff was the first and original inventor of that combination then the claim is valid, and if the defendant has infringed upon it the plaintiff will be entitled to a verdict.

The plaintiff has testified in substance that prior to his alleged invention he saw the so-called Alden drier; and that it operated in the drying of fruit in the same manner as the drier described in his patent operated, but that the mechanical construction of the parts that lifted the fruit trays was different and operated differently.

In the Alden patent it is asserted that there were four endless chains which were moved by mechanism in one direction only. That the chains had lugs attached to them which lugs received the trays of fruit one at a time at the lower part of the furnace and carried it upwards. That as fast as one tray had raised out of the way another tray was placed upon the next set of lugs that the chains carried, and this operation was repeated until the
162 stack of the drier was full and the tray first put in had reached the top of the drier, at which place, when the fruit was sufficiently dry, the top tray would be removed through an upper door, and another tray of undried fruit would be again placed in the bottom, and in this manner the drier was kept full of trays of drying fruit.

The plaintiff has testified in substance that the trays of fruit were placed in the bottom of the drier described in his patent, one at a time; that it was carried up far enough to permit another to be inserted, and so on until the stack of the drier was full when the upper tray would be removed from the drier through a door at the top, and another tray of undried fruit would be placed in the bottom and in this way the drier described in the patent was kept full of trays of drying fruit.

The mechanism of both the driers has been described to you, and it is conceded that such mechanism is not the same in the two driers.

The defendant, however, contends that the operation of the two driers, as driers, are precisely alike, and that all the changes that the plaintiff made so far as the combination of the second claim is

concerned was to substitute equivalent mechanical devices in his drier for the chains and lugs that were used in the Alden drier. It is for you, gentlemen of the Jury, to determine as a question of fact whether this is true or not.

The Court instructs you that the making of a new form of combination which consists only in substituting known equivalents for the mechanism already used in a combination of the same character, and which is used for the same purpose, and which accomplishes the same result is only the exercise of mechanical skill, and does not constitute any patentable invention. This is true even though by the substitution of the mechanical equivalents better results are obtained.

163 The mere exercise of mechanical skill is not patentable.

Mechanical skill is one thing; invention is quite a different thing. Mere perfection of workmanship, however much it may increase the convenience, extend the use, or diminish expense, is not patentable.

If the Jury believe from the evidence that the only change made in fruit driers as far as the second claim of the patent goes was to substitute the posts and catches mentioned in said second claim with the proper mechanism for operating them for the chains and lugs used in the prior Alden drier, and if the Jury also believe that the posts and catches mentioned in said second claim were well known mechanical equivalents for the chains and lugs of the Alden drier at the time the plaintiff made his alleged invention, then the Jury should find that the second claim does not cover any patentable invention and should find for the defendant.

An improvement in a machine to be patentable must involve invention, and it is not invention to merely change an existing machine by substituting known mechanical equivalents for the devices used in a known combination.

Invention, in the sense of the patent law, is the finding out, contriving or creating something not existing and not known before, by the action of the intellect. It is the work of the head as distinguished from the work of the hand, and must result from the intuitive faculty of the mind put forth in search for new results or new methods. The true test whether a device is the result of invention

or mechanical skill, is whether an ordinary or a skilled
164 mechanic would make it without other suggestion than his knowledge of the art.

As embodying these general ideas, I read from one of the authorities that was cited from the Supreme Court of the United States:—
“A patentable invention is a mental result. It must be new and shown to be of practical utility. Everything within the domain of the conception belongs to him who conceived it. The machine, process, or product is but its material reflex and embodiment. A new idea may be engrafted upon an old invention be distinct from

the conception which preceded it and be an improvement. In such cases it is patentable. The prior patentee cannot use it without the consent of the improver, and the latter cannot use the original invention without the consent of the former. But a mere carrying forward, or new, or more extended application of the original thought, a change only in form, proportion or degree, the substitution of equivalents, doing substantially the same thing in the same way by substantially the same means, with better results, is not such invention as will sustain a patent.

These rules apply alike, whether what preceded was covered by a patent or rested only in public knowledge and use. In neither case can there be an invasion of such domain and an appropriation of anything found there. In one case everything belongs to the patentee; in the other to the public at large."

With reference to the question of anticipation which I omitted to speak of when I made the first general statement, several patents were introduced here of which this patent of the plaintiff is claimed to be anticipated.

165 Upon this point I instruct you as a matter of law, that by the term "anticipation" is meant substantial identity, that is to say, for a prior device to be an anticipation of a patented device, it must be substantially identical with the patented device. It is your duty as Jurors to determine the fact, from the evidence, whether any of the prior patented devices shown to have been in existence before the date of the plaintiff's patent were substantially identical with plaintiff's patented device. Unless you find such identity, the patent is not anticipated. In determining whether two devices are, or are not, substantially identical, you must determine whether or not they produce substantially the same results in substantially the same manner.

It is unnecessary to repeat in regard to each patent. These prior patents all come under the same general rule in what I have said in relation to the Alden patent, or any other prior patent. It must apply to all other prior patents. It is unnecessary to go through them as it has been done in some instructions asked.

If the Jury believe from the evidence that the combination of the second claim of the plaintiff's patent was anticipated by any of the prior patents either the so-called Alden machine, or by the Button patent they should find a verdict for the defendant upon that ground.

A combination of mechanical elements in order to be patentable must produce a different force, or effect, or result in combined forces or processes that are different from those given by their separate parts.

There has been some discussion here as to whether or not this was a patentable combination or an aggregation. No instructions have been asked by counsel on either side, and I suppose none are

requested upon that point. Unless counsel desire it, I shall
 166 not submit that question to the Jury. If they do desire it I
 shall give the Jury instructions as to the distinction between
 a patentable combination and an aggregation.

MR. WHEATON. I did not have time. All I meant by that was
 if these upper set of catches were to be read into the claim, that
 that would be an aggregation, as the expert testified that they acted
 independently of each other. As to the other part of it I do not
 think it will apply.

THE COURT. I shall not give any instruction about that.

The plaintiff has introduced evidence by which he claims to
 show that he made his invention before the Button patent was ap-
 plied for. The party that undertakes to anticipate a patent by
 proving that the patentee named in that patent was not the first
 inventor of what the patent covers must prove an anticipation
 thereof by proof clear, positive and unequivocal. If there is a
 reasonable doubt as to the fact of the patent being anticipated the
 doubt must be resolved in favor of the patent.

The second claim of the patent includes as a part of its elements,
 spring catches. Until the plaintiff has made the combination with
 spring catches he had not made the combination which is covered
 by such second claim.

The second claim of plaintiff's patent is for a combination of the
 following elements, viz;—a dryer, stationary posts provided with a
 series of spring catches, a similar number of movable parts pro-
 vided with a like series of catches and a suitable mechanism for
 raising and depressing the movable posts.

If you find that the defendants have used all of those ele-
 167 ments or their mechanical equivalents, combined together
 and accomplishing substantially the same result in the same
 way then they have infringed this claim, that is of course if you
 find that there has been invention. If there has been no invention
 you do not reach that question.

When, in mechanics, one device does a particular thing or ac-
 complishes a particular result, every other device known or used in
 mechanics which skillful and experienced workmen know will pro-
 duce the same result, or do the same particular thing is a known
 mechanical substitute for the first device. It is sufficient to consti-
 tute known mechanical substitutes, that when a skillful mechanic
 sees one device doing one particular thing, that he knows the other
 devices with whose use he is acquainted, will do the same thing.

If you find that the gravity catches of the defendant do the same
 thing in substantially the same way as the spring catches of
 plaintiff, and that a skilled mechanic, upon seeing the spring
 catches, work would know that gravity catches would do the same
 thing in the same way, then the two are mechanical equivalents.

When a patent is not for a mere form, the patentee is not required

to claim his invention in all the forms in which it may be embodied. All that he is required to do is to describe and claim it in the best form he has contemplated using it, and having done that he will be protected in all forms by virtue of the doctrine of mechanical equivalents.

If the patent shows that the plaintiff contemplated using gravity catches as well as spring catches and the two are mechanical equivalents, then it was not necessary for him to claim both forms, but

when he claimed one form that included the other.

168 The fact that in his original application plaintiff claimed as an element of his second claim spring or other catches and that he afterwards struck out the words 'or other', leaving the element simply spring catches, does not limit his claim to spring catches nor deprive him of gravity catches if the latter are mechanical equivalents of spring catches.

If you find that the defendants have used all the specified elements of plaintiff's second claim, except that they have substituted gravity catches instead of spring catches, and you further find that gravity catches do the same thing in substantially the same way as the spring catches, then the defendants have infringed that claim.

There is an instruction asked by the plaintiff in regard to anticipation. I have already given one of my own. It is substantially the same, and I will give that.

The defendant has put in evidence several patents prior to that of plaintiff and claims that they anticipate the plaintiff's patent. Now by anticipation is meant substantial identity. Unless these prior patents show substantially the same thing as that covered by the plaintiff's second claim, they are not anticipations. This is a question of fact for you alone to determine. That is to say you must determine whether the Cassidy invention is substantially identical with any invention or device shown or described in these prior patents or any of them, and unless you find such identity, then the Cassidy invention is not anticipated.

Upon the question of damages I shall give you very few instructions. I shall instruct you that a license fee cannot be allowed as damages in a patent case unless it is proved that a license

169 fee was fixed by the plaintiff and that he was able to sell rights to others at that price in sufficient quantities to show that the public acquiesced in that price and voluntarily paid it for the right to use the invention.

There is no fixed royalty of license fee that can be applied as a rule of damages in this case unless the plaintiff has proven that he was able to sell rights to use the inventions at the price fixed by him. If he did not make sales in such numbers and at such uniform prices as to create an established license fee then he is not entitled to claim any such license fee as a rule of damages in this case.

If however you find from the evidence that plaintiff has established a fixed uniform royalty for the use of his invention by others, and has collected the same from other persons in several instances, then I instruct you that the said royalty is the proper measure of damages.

Now gentlemen those are all the instructions I propose to give to you in this case. It will be your duty when you go to your jury room to appoint some one of your number as foreman; to carefully consider the several points upon which you have been instructed, first as to whether this invention is one that was patentable under the instructions given by the Court, whether it was anticipated by the prior patents, whether it has been infringed, and if you find all those things in favor of the plaintiff you will determine the amount of damages if any to which the plaintiff is entitled.

It takes a unanimous number to agree on a verdict. When you agree on your verdict notify the officer in charge, and he will inform the Court and officers, if they are present. If they are not present he will so inform you, and you will be at liberty to find a verdict and seal it up, and deliver a sealed verdict to the
170 officer. In the event that the Court should not be present when you arrive at a verdict, seal it up, and leave it with the officer and be present to-morrow morning at eleven o'clock.

Whenever you agree on a verdict, if you do, first inform the officer, and he will inform you if the Court is ready to take your verdict.

The Clerk has handed me two forms of verdict which you will take with you, as well as the patents in this case, if you desire them.

Of course if under the instructions you find for the defendant your verdict will be, "We the Jury find in favor of the defendant." If in favor of the plaintiff, it will be "we the Jury find in favor of the plaintiff," filling up the amount of damages.

Exception Thirty-five.

In the course of the charge to the Jury the Court gave the following instructions:

"If you find that the defendants have used all of these elements or their mechanical equivalents, combined together and accomplishing substantially the same result in the same way then they have infringed this claim, that is of course if you find that there has been an invention. If there has been no invention you do not reach that question.

When, in mechanics, one device does a particular thing or accomplishes a particular result, every other device known or used in mechanics which skillful and experienced workmen know will produce the same result, or do the same particular thing is a known

mechanical substitute for the first device. It is sufficient to constitute known mechanical substitutes, that when a skillful
 171 mechanic sees one device doing one particular thing, that he knows the other devices with whose use he is acquainted, will do the same thing."

To which said portion of said charge counsel for the defendant then and there duly excepted and hereby tenders to the Court this its bill of exceptions to sign and seal, and the Court does hereby sign and seal the same.

Exception No. 36.

In a subsequent portion of the charge the Court instructed the Jury as follows:—

"If you find that the gravity catches of defendant do the same thing in substantially the same way as the spring catches of plaintiff, and that a skilled mechanic, upon seeing the spring catches work, would know that gravity catches would do the same thing in the same way, then the two are mechanical equivalents."

To which said portion of said charge counsel for the defendant then and there duly excepted and hereby tenders to the Court this its bill of exceptions to sign and seal, and the Court does hereby sign and seal the same.

Exception No. 37.

In a subsequent portion of the charge, the Court instructed the Jury as follows:—

"When a patent is not for a mere form, the patentee is not required to claim his invention in all the forms in which it may be embodied. All that he is required to do is to describe and claim it in the best form he has contemplated using it, and having done that he will be protected in all forms by virtue of the doctrine of mechanical equivalents."

To which said portion of said charge counsel for the
 172 defendant then and there duly excepted and hereby tenders to the Court this its bill of exceptions to sign and seal, and the Court does hereby sign and seal the same.

Exception No. 38.

In a subsequent portion of the charge the Court instructed the Jury as follows:—

"If the patent shows that the plaintiff contemplated using gravity catches as well as spring catches and the two are mechanical equivalents, then it was not necessary for him to claim both forms, but when he claimed one form that included the other."

To which said portion of said charge counsel for the defendant then and there duly excepted and hereby tenders to the Court this its bill of exceptions to sign and seal and the Court does hereby sign and seal the same.

Exception No. 39.

In a subsequent portion of the charge the Court instructed the Jury as follows:—

“The fact that in his original application plaintiff claimed as an element of his second claim spring or other catches, and that he afterwards struck out the words ‘or other,’ leaving the element simply spring catches, does not limit his claim to spring catches nor deprive him of gravity catches if the latter are mechanical equivalents of spring catches.”

To which said portion of said charge, counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal, and the Court does hereby sign and seal the same.

Exception No. 40.

In a subsequent portion of the charge the Court instructed the Jury as follows:—

173 “If you find that the defendants have used all the specified elements of plaintiff’s second claim, except that they have substituted gravity catches instead of spring catches, and you further find that gravity catches do the same thing in substantially the same way as the spring catches, then defendants have infringed that claim.”

To which said portion of said charge counsel for the defendant then and there duly excepted and hereby tenders to the Court this its bill of exceptions to sign and seal, and the Court does hereby sign and seal the same.

Exception No. 41.

In a subsequent portion of the charge the Court instructed the jury as follows:

“If however you find from the evidence that plaintiff has established a fixed uniform royalty for the use of his invention by others, and has collected the same from other persons in several instances, then I instruct you that the said royalty is the proper measure of damages.”

To which said portion of said charge counsel for the defendant then and there duly excepted and hereby tenders this its bill of exceptions to the Court to sign and seal, and the Court does hereby sign and seal the same.

At the close of the Judge’s charge the following occurred:

MR. WHEATON: We except to instruction that the gravity catches are the equivalent of the spring catches. That exception is based on the ground that all other kinds of catches were abandoned in the Patent Office.

MR. MILLER: There is no such instruction as I understand.

MR. WHEATON: Also to that part of the instruction which

174 tells the jury that all forms of equivalent devices would be the same thing as the spring catches. The best I can do is to give the substance. Your Honor will know what I mean. And that they may claim the gravity as the equivalent of the spring catches. I think it came in two forms. I do not contend that the gravity catch is not the equivalent of a spring catch. My contention is that under what occurred in the Patent Office they abandoned all equivalents and were estopped from claiming them.

Upon the rule of damages we except to the giving of any instruction that the plaintiff may under any circumstances in this case be allowed an established license fee, for the reason that there is no evidence to show that there was any established license fee for the one claim of the patent. There is not a particle of evidence on that ground, and that a license fee for a whole patent cannot be the rule of damages where only a part of the patent has been used.

MR. KIERCE: We except to your Honor's refusal to give the sixth instruction. We also except to your Honor's refusal to give the seventh. We also except to your Honor's refusal to give the eighth. We also except to your Honor's refusal to give the ninth. We also except to your Honor's refusal to give the 10th. We also except to your Honor's refusal to give the eleventh.

THE COURT: The substance of the eleventh is just the same as the one prior. It has already been given. That is the reason I did not give that. It is correct. I had already given it.

MR. KIERCE: We also except to the instruction given, No. 13. Some of the instruction was left out.

175 THE COURT: All that was left out of that were the words "all of."

MR. KIERCE: We except to the 14th as given, because some words were inserted. To the 23rd because it was not given. Also the 24th because it was not given. Also to the 27th. Also the 28th. Also the 29th. Also the 30th. Also the 31st. Also the 34th. Also the 35th. Also the 38th. Also the 39th. Also the 40th. Also the 42nd. Also the 43rd. Also the 45th. Also the 46th. Also the 47th.

THE COURT. The 46th. I will now give to the Jury. That is on the question of damages. I am glad you called my attention to it. "It is, in all cases the burden of proof is upon the plaintiff to show the amount of his damages. The damages must be proved by competent, reliable evidence. They must not be guessed at or conjectured." You can consider that as a part of the instructions on the question of damages.

MR. KIERCE. Also the 47th. Also the 48th. Also the 49th. Also the 50th, and also the 51st.

THE COURT. The 51st should be given. If they do not find any royalty the plaintiff would be entitled only to nominal damages. You can consider that as being given to the Jury.

A JUROR. Suppose that the Jury should consider these appliances were old in other machines, and never attached to a fruit drier before. Is it patentable as a fruit drier?

THE COURT. A party has a right to use old elements if they are put together in such a form as to produce new and useful results?

The foregoing proceedings occurring immediately after the charge of the Court to the Jury furnish the only foundation for the exceptions to the said charge hereinabove allowed in this bill of exceptions.

The Jury then retired and soon returned with a verdict in favor of the plaintiff for damages in the sum of one thousand three hundred and fifty dollars.

And now in furtherance of justice and that right may be done the defendant presents the foregoing as its bill of exceptions in this case and prays that the same may be settled and allowed, and signed and certified by the Judge as provided by law.

WHEATON, KALLOCH & KIERCE,

Attorneys for Defendant.

The foregoing bill of exceptions is correct and is hereby allowed and settled.

(Signed)

THOMAS P. HAWLEY,

Acting Circuit Judge of the U. S. Circuit Court, Northern District of California.

(Endorsed:) Filed February 20, 1892.

L. S. B. SAWYER,

Clerk.

Assignment of Errors.

177 In the United States Circuit Court of Appeals, for the Ninth Circuit.

HUNT BROTHERS FRUIT PACKING COMPANY,
Plaintiff in Error.

vs.

JOHN W. CASSIDY,
Defendant in Error.

Assignment of Errors.

Now comes the Hunt Brothers Fruit Packing Company, the Plaintiff in error, herein, by Wheaton, Kalloch & Kierce, its Attorneys and counsel and particularly specifies the following as the errors upon which it will rely, and which it will urge upon its writ of error in the above entitled cause.

1.

That the Court erred in overruling the objection of the counsel for the plaintiff in error to the following question, asked the plaintiff John W. Cassidy:

“ Q. With that as a basis I will repeat the question and ask you which in your judgment, would be the cheapest to construct yours or the Alden ?”, and in permitting the plaintiff to answer the same.

2.

That the Court erred in refusing to instruct the Jury at the close of the plaintiff's case to bring in a verdict in favor of the plaintiff in error.

3.

That the Court erred in sustaining the objection of the defendant in error, to the introduction in evidence of a copy of the specifications and drawings of United States Letters Patent No. 179,275, granted to Samuel W. Craven for an Improvement in Drying houses, dated June 27, 1876.

4.

178 That the Court erred in sustaining the objection of the defendant in error to the introduction in evidence of a copy of the specifications and drawings of Letters Patent of the United States No. 171,202, granted to L. & F. Whittlesey for an Improvement in Fruit Driers, bearing date December 14th, 1875, on the ground that it was not an anticipation of the patent of the defendant in error.

5.

That the Court erred in sustaining the objection of the defendant in error to the introduction in evidence of a copy of the specifications and drawings of Letters Patent of the United States No. 171,202, granted to L. & F. Whittlesey for an Improvement in fruit Driers, bearing date December 14th, 1875, on the ground that it could not be offered for the purpose of showing the state of the art at the time defendant in error received his patent.

6.

That the Court erred in sustaining the objection of the defendant in error to the following question asked the witness C. Wightman :

Q. “ What if anything, did Mr. Cassidy say to you about bringing suit ?

7.

That the Court erred in sustaining the objection of the defendant in error, to the offer of the Plaintiff in error to show by the patent office reports of the year 1870, the date and the claims of the patent granted to Charles Alden by the Government of the United States.

8.

179 That the Court erred in overruling the objection of the plaintiff in error to the offer of the defendant in error to introduce in rebuttal a drawing made by the defendant in error, for the purpose of showing the date of his invention, and allowing the same to be introduced in evidence in rebuttal.

9.

That the Court erred in sustaining the objection of the defendant in error, to the following question asked him on cross examination, "Q. In the model that you have presented here, why have you substituted that crank and screw apparatus for the ropes and crank which is described in your patent?" and in refusing the answering of said question.

10.

That the Court erred in refusing to give the following instruction to the Jury as requested by the Plaintiff in error,

"Any thing that is described in the specifications of the patent and not included in its claims is conclusively presumed not to be any part of the patentee's invention, and is not covered by his patent."

11.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error,

"The records of the patent office which show the proceedings there had in determining what the patentee might claim as his invention, and ascertaining from them what the patent office consented to allow, and what the patentee consented to accept as the invention to which he was entitled, are admitted in evidence."

12.

180 That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error:

"In such cases whenever it appears from those records that the officers of the patent office refused to allow a claim as it was originally drawn by the patentee, and that upon such refusal the patentee changed the language of the claim so as to leave out some part of what the claim included as it was at first drawn, and that the patent office allowed and the patentee accepted the patent with that part left out of the claim which the patentee had first asked for in the claim as originally drawn, then the patentee is not afterwards permitted to have the matter so left out from the original claim covered by his patent either upon the ground that it is a mechanical equivalent of what is granted in the patent as issued, or upon any other ground."

13.

That the Court erred in refusing to give to the jury the following instruction requested by the plaintiff in error :

“ If the jury believe from the evidence that in the original second claim which the plaintiff filed in the Patent Office he asked to have allowed as elements of the combination of the claim ‘ the vertically moving posts, provided with the springs *or other catches n,*’ and also believe that the officers of the Patent Office refused to grant the patent with the words ‘ or other catches’ in the claim, and that thereupon the patentee or his attorney changed the language of the claim so as to leave out the words ‘ or other catches ” and accepted the patent with those words left out of the claim, then the jury must not consider that the combination of the second claim covers any combination of devices unless that combination of devices includes *spring catches* among its elements.”

14.

That the Court erred in refusing to give to the jury the following instruction requested by the plaintiff in error :

“ The specifications of the patent when they were first filed in the Patent Office includes the following language, viz :

‘ Catches which would fall out by gravitation might be substituted for the springs in some cases.’ The jury have the right to infer that the ‘ other catches ’ mentioned in the claim as originally applied for, and which were stricken out of the claim afterwards, were the catches which might fall out by gravitation, mentioned in the specifications and that those were the very catches that the Patent Office refused to permit the patent to cover as a part of the combination of the claim.”

15.

That the Court erred in refusing to give to the jury the following instruction requested by the plaintiff in error :

“ A patentee is bound by the claims of his patent and cannot cover with his patent anything that is not distinctly claimed in the patent as his invention.”

16.

That the Court erred in refusing to give to the jury the following instruction requested by the plaintiff in error :

“ If the jury believe that a skilled mechanic who was acquainted with the construction and operations of the Alden drier would know from his knowledge as a mechanic, that he could substitute for the lifting apparatus of the Alden drier the lifting mechanism of the plaintiff's patent without any invention, and that such mechanic would also know from his knowledge as a mechanic that when

the lifting mechanism of the patent was so substituted for
 182 the lifting mechanism of the Alden drier that it would operate to do the lifting as it does do it then the jury must believe that such substitution did not amount to any invention and should find a verdict for the defendant."

17.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error:—

"If the Jury believe from the evidence that the so-called Alden drier was a drier which was constructed upon the same general plan as the drier that is shown in the plaintiff's patent and that it received fruit trays at the bottom, one at a time and carried them up to the top where they were taken from the drier one at a time, and that it was operated by the use of endless chains with mechanism for driving them in the manner described by the plaintiff while he was a witness upon the stand and if the Jury also believe from the evidence that the only substantial difference between the said Alden drier and the drier described in the plaintiff's patent consisted in the substitution of the spring catches in the stationary posts and the vertically moving posts with the spring catches in them, for the movable chains and lugs with the mechanism which operated them in the Alden drier, then the Jury should conclude that the difference between the two driers consists in the substitution for the chains and lugs of the Alden drier the spring catches and posts shown in the plaintiff's patent, and should also conclude that such change amounted only to the substitution of one set of mechanical devices for the devices used in the Alden drier, and that such substitution did not constitute a patentable invention and that
 183 for this reason the second claim of the plaintiff's patent is void for the reason that it does not constitute any patentable invention."

18.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error:—

"There has also been introduced in evidence a patent on fruit driers that was granted to Joel O. Button on the 22nd day of September, 1874. It was applied for on the 20th day of July, 1874."

19.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error:—

"If the Jury believe from the evidence that catches without springs were described in the so-called Button patent which was issued prior to the time that the plaintiff applied for his patent and that the catches without springs were operated in the machines

made under the Button patent in the same way, as were the spring catches used in the patent sued on, and that such catches in the Button patent when so operated produced the same kind of results as were afterwards produced by the spring catches in the patent sued on, then the Jury should find that it was no infringement of the plaintiff's catches to use the catches without springs in the same kind of a combination as they were placed in when they were used in the machines made under the Button patent."

20.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error:—

184 "The Jury are instructed that if the catches without springs were used in the so-called Button patent prior to the time that the plaintiff applied for his patent and were so used in the Button patent for the same purpose and in the same way that the plaintiff used them in his invention, the fact that in the Button patent only one set of the catches were used while in the drier described in the plaintiff's patent several sets of the catches are used would not amount to invention within the meaning of the law."

21.

That the Court erred in refusing to give to the Jury the following instructions requested by the plaintiff in error:—

"The Jury are instructed that the mere multiplication of parts or combinations for the purpose of repeating the same operations that a single one of the parts or combinations produces does not constitute any patentable invention."

22.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error:—

185 "If the Jury believe from the evidence that there was described in the Button patent a table or frame on which the lower tray was placed and that that table or frame was moved up and down by proper mechanical devices, and that when it was so moved upwards it carried the tray with it, and that there were catches which receded to allow the tray to pass upwards and which as soon as the tray passed then fell back under the edges of the tray in the same manner as the catches of the plaintiff's patent are forced back by the springs under the edges of the tray that pass them in going upwards, and also believe that the table of the Button patent returned to its downward position to receive another tray as soon as it had delivered the first one to the stationary catches, and if the Jury also believe that this operation of the Button patent could be constantly repeated until the stacks of trays filled

the drier and that the upper tray could then be removed from the drier through an upper door or slide and another tray placed in the bottom as often as the other tray was so removed, then the Jury should conclude that the Button patent is a full anticipation of the second claim of the plaintiff's patent, unless the Jury believe that the spring catches are substantially different from the catches that were in the Button patent."

23.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error:

"If the Jury believe from the evidence that the several sets of spring catches described in the plaintiff's patent were each operated independently of the action of each of the other sets of spring catches, and that there was no joint action between the lower set of spring catches and the other sets of spring catches that were above them, then the Jury must conclude that there was no patentable combination between the lower set of spring catches shown in the plaintiff's patent and the sets of spring catches above them."

24.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error:—

"If there is no joint action between the lower set of spring catches shown in the plaintiff's patent and the other sets of spring catches above them, then the second claim of the patent is invalid if it includes in its combination any of said spring catches that are above the said lower set."

186

25.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error:—

"If therefore what the plaintiff had made prior to the application for the Button patent did not include spring catches then it did not include the combination of the second claim."

26.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error:—

"In this case the plaintiff's patent does not cover the whole machine. He therefore cannot recover as damages the profits that he made by making and selling the driers as an entire machine."

27.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error:

“The plaintiff has not proved that there was any established license fee existing between him and the people of California during the time in which the defendant was either making, or using its fruit driers. He is therefore not entitled to recover any license fee as damages.”

28.

That the Court erred in refusing to give to the jury the following instruction requested by the plaintiff in error :

“Where the license fee or royalty is fixed by the patentee for a right to use all the inventions that are covered by all the claims of his patent in cases where the patent has more than one claim and it is shown that the defendant has infringed only a part of the claims of the patent in such case the plaintiff cannot recover as damages for the infringement of one claim the royalty or
187 license fee which he has fixed as the price of the invention covered by all of the claims of the patent.”

29.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error :

“If the plaintiff sold the right to use the patented inventions while the patent had eight or more years yet to run at a given price, that fact does not of itself prove that he could sell the patented rights for the same amount in later years when the patent had less than one half as many years to run.”

30.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error :

“Where a part of the patented inventions only are used by an infringer the plaintiff is bound to prove the damages occasioned to him by the infringement, and if he fails to prove the amount of such damages by reliable testimony he can recover only nominal damages.”

31.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error :

“Where the patent is for an improvement, and not for an entirely new machine or contrivance, the patentee must show in what particulars his improvement has added to the usefulness of the machine or contrivance. He must separate his results distinctly from those of the other parts, so that the benefits derived from it may be distinctly seen and appreciated.”

188

32.

That the Court erred in refusing to give to the Jury the following instruction requested by plaintiff in error :

“The patentee must, in every case give evidence tending to separate or apportion the defendant’s profits and the patentee’s damages between the patented features and the unpatented features, and such evidence must be reliable and tangible, and not conjectural or speculative; or he must show, by equally reliable and satisfactory evidence, that the profits and damages are to be calculated on the whole machine, for the reason that the entire value of the whole machine, as a marketable article, is properly and legally attributable to the patentable feature.”

33.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error:—

“In this case it is admitted that the first claim of the patent was not infringed. As the plaintiff has not introduced any testimony tending to show what the value of the combination covered by the second claim was, nor any testimony tending to show the amount of any damages suffered by him by the infringement of the second claim, nor any data by which any such damages could be estimated, nor any established license fee or royalty for the use of the combination covered by the second claim he can recover nominal damages only for the infringement of the second claim of the patent.”

34.

That the Court erred in refusing to give to the Jury the following instruction requested by the plaintiff in error:—

“If the Jury find for the plaintiff on the other issues in the case they must find nominal damages only.”

189

35.

That the Court erred in giving to the Jury the following instruction during the course of the Charge to the Jury:

“If you find that the defendants have used all of these elements or their mechanical equivalents, combined together and accomplishing substantially the same result in the same way then they have infringed this claim, that is of course if you find that there has been an invention. If there has been no invention you do not reach that question.

When, in mechanics, one device does a particular thing or accomplishes a particular result, every other device known or used in mechanics which skillful and experienced workmen know will produce the same result, or do the same particular thing is a known mechanical substitute for the first device. It is sufficient to constitute known mechanical substitutes, that when a skillful mechanic sees one device doing one particular thing that he knows the other devices, with whose use he is acquainted, will do the same thing.”

36.

That the Court erred in giving the following instruction during the course of the charge to the Jury :—

“ If you find that the gravity catches of defendant do the same thing in substantially the same way as the spring catches of plaintiff, and that a skilled mechanic, upon seeing the spring catches work, would know that gravity catches would do the same thing in the same way, then the two are mechanical equivalents.”

37.

That the Court erred in giving the following instruction during the course of the charge to the Jury :—

190 When a patent is not for a mere form, the patentee is not required to claim his invention in all the forms in which it may be embodied. All that he is required to do is to describe and claim it in the best form he has contemplated using it, and having done that he will be protected in all forms by virtue of the doctrine of mechanical equivalents.”

38.

That the Court erred in giving the following instruction during the course of the charge to the Jury :—

190 “ If the patent shows that the plaintiff contemplated using gravity catches as well as spring catches and the two are mechanical equivalents, then it was not necessary for him to claim both forms, but when he claimed one form that included the other.”

39.

That the Court erred in giving the following instruction during the course of the charge to the Jury :—

“ The fact that in his original application plaintiff claimed as an element of his second claim spring or other catches and that he afterwards struck out the words ‘ or other ’, leaving the element simply spring catches, does not limit his claim to spring catches nor deprive him of gravity catches if the latter are mechanical equivalents of spring catches.”

40.

That the Court erred in giving to the Jury the following instruction during the course of its charge :—

“ If you find that the defendants have used all the specified elements of plaintiff’s second claim, except that they have substituted gravity catches instead of spring catches, and you further find that gravity catches do the same thing in substantially the same way as the spring catches, then defendants have infringed that claim.”

191

41.

That the Court erred in giving to the Jury the following instruction during the course of its charge:—

“If however you find from the evidence that plaintiff has established a fixed uniform royalty for the use of his invention by others, and has collected the same from other persons in several instances, then I instruct you that the said royalty is the proper measure of damages.”

WHEATON, KALLOCH & KIERCE,
Attorneys for Plaintiff in Error, and Defendant.

(Endorsed :) Filed Jan. 18, 1892.

L. S. B. SAWYER,
Clerk.

Petition for an Order Allowing a Writ of Error.

192 In the United States Circuit Court, Northern District of California.

JOHN W. CASSIDY,	Plaintiff,	} No. 11,361.
vs.		
HUNT BROTHERS' FRUIT PACKING COMPANY (a corporation),	Defendant.	}

Petition of Defendant for an Order Allowing a Writ of Error.

The Hunt Brothers Fruit Packing Company, defendant in the above entitled cause, feeling itself aggrieved by the verdict of the jury, and the judgment entered on the 29th day of December, 1891, in pursuance of said verdict, whereby it was ordered, adjudged and decreed that the second claim of plaintiff's patent sued upon was good and valid in law, and that the defendant had infringed upon said second claim of said patent, and decreeing that the plaintiff have and recover of and from the defendant the sum of \$1350.00 damages with costs, comes now by Wheaton, Kalloch & Kierce it attorneys, and petitions said Court for an order allowing said defendant to prosecute a writ of error to the Honorable the United States Circuit Court of Appeals for the Ninth Circuit, under and according to the laws of the United States in that behalf made and provided, and also that an order be made fixing the amount of security which defendant shall give and furnish upon said writ of error, and that upon the giving of such security all further proceedings in this Court be suspended and stayed until the determination of said writ of error by said United States Circuit Court of Appeals for the Ninth Circuit.

193 And your petitioner will ever pray.

WHEATON, KALLOCH & KIERCE,
Attorneys for Defendant.

(Endorsed :) Jan. 18, 1892.

L. S. B. SAWYER,
Clerk.

Bond on Writ of Error.

194 Know all Men by these Presents, that we, Hunt Brothers Fruit Packing Company as principal, and Charles W. Pike and D. H. Porter as sureties, are held and firmly bound unto John W. Cassidy, in the full and just sum of Two Thousand Dollars, to be paid to the said John W. Cassidy, his certain attorneys, executors, administrators or assigns; to which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators, jointly and severally, by these presents. Sealed with our seals and dated this 18th day of January, in the year of our Lord one thousand eight hundred and ninety-two.

Whereas, lately at a Circuit Court of the United States, for the Northern District of California, in a suit depending in said Court, between John W. Cassidy, plaintiff (and defendant in error) and Hunt Brothers Fruit Packing Company, a corporation, organized and existing under and by virtue of the laws of the State of California, defendant (and plaintiff in error) a judgment was rendered against the said defendant (and plaintiff in error) and the said Hunt Brothers Fruit Packing Company have obtained from said Court a Writ of Error to reverse the judgment in the aforesaid suit, and a citation directed to the said John W. Cassidy is about to be issued, citing and admonishing him to be and appear at a United States Circuit Court of Appeals for the Ninth Circuit, to be holden at San Francisco, in the State of California.

Now, the condition of the above obligation is such, that if the said Hunt Brothers Fruit Packing Company shall prosecute its Writ of Error, to effect, and answer all damages and costs if it fail to
195 make its plea good, then the above obligation to be void; else to remain in full force and virtue.

Acknowledged before me the day and year first above written.

L. S. B. SAWYER,

Commissioner U. S. Circuit Court, Northern District of California.

CHAS. W. PIKE. [SEAL.]
D. H. PORTER. [SEAL.]

United States of America, }
Northern District of California. } ss.

Charles W. Pike and D. H. Porter being duly sworn, each for himself, deposes and says, that he is a householder in said district, and is worth the sum of Two Thousand Dollars, exclusive of property exempt from execution, and over and above all debts and liabilities.

CHAS. W. PIKE.
D. H. PORTER.

Subscribed and sworn to before me, this 18th day of January,
A. D. 1892.

L. S. B. SAWYER,
Commissioner of U. S. Circuit Court, Northern District of California.
(Endorsed:) Form of Bond and Sufficiency of Sureties Ap-
proved. (Signed) HAWLEY,
Judge.

Filed January 18, 1892.

L. S. B. SAWYER,
Clerk U. S. Circuit Court, Northern District of California.

Certificate to Transcript.

In the Circuit Court of the United States, Ninth Judicial Circuit,
Northern District of California.

JOHN W. CASSIDY,

vs.

HUNT BROTHERS FRUIT PACKING COMPANY. }

No. 13,361.

I, L. S. B. Sawyer, Clerk of the Circuit Court of the United States of America, of the Ninth Judicial Circuit, in for the Northern District of California, do hereby certify the foregoing 195 written and printed pages, numbered from 1 to 195 inclusive, to be a full, true and correct copy of the record and of the proceedings in the above and therein entitled cause, and the same together constitute the return to the annexed Writ of Error.

[SEAL.] IN TESTIMONY WHEREOF, I have hereunto set my hand,
and affixed the Seal of said Circuit Court, this 9th day of
March, A. D. 1892.

L. S. B. SAWYER,
Clerk U. S. Circuit Court, Northern District of California.

Writ of Error.

UNITED STATES OF AMERICA, ss:

The President of the United States,

To the Honorable, the Judge of the Circuit Court of the United States for the Northern District of California, Greeting:

BECAUSE, in the record and proceedings, as also in the rendition of the judgment of a plea which is in the said Circuit Court, before you, or some of you, between Hunt Brothers Fruit Packing Company, plaintiff in error and John W. Cassidy Defendant in error, a manifest error hath happened, to the great damage of the said Hunt Brothers Fruit Packing Company, Plaintiff in Error, as by its complaint appears.

We, being willing that error, if any hath been, should be duly corrected, and full and speedy justice done to the parties aforesaid in this behalf, do command you, if judgment be therein given, that

then under your seal, distinctly and openly, you send the record and proceedings aforesaid, with all things concerning the same, to the United States Circuit Court of Appeals for the Ninth Circuit, together with this writ, so that you have the same at the City of San Francisco, in the State of California, on the sixteenth day of February next, in the said Circuit Court of Appeals, to be then and there held, that the record and proceedings aforesaid being inspected, the said Circuit Court of Appeals may cause further to be done therein to correct that error, what of right, and according to the laws and customs of the United States, should be done.

[SEAL.] Witness, the Honorable MELVILLE W. FULLER, *Chief Justice of the Supreme Court of the United States*, the 19th day of January, in the year of our Lord One Thousand, Eight Hundred and Ninety-two.

F. D. MONCKTON,

Clerk of the United States Circuit Court of Appeals for the Ninth Circuit.

Allowed by

THOMAS P. HAWLEY, *U. S. Judge.*

(Endorsed:) Service of the within Writ of Error and receipt of a copy thereof admitted this 20th day of January, 1892.

LANGHORNE & MILLER,

Attorneys for Defendant in error and plaintiff.

(Endorsed:) Filed January 20, 1892. L. S. B. SAWYER, Clerk U. S. Circuit Court, Northern District of California.

The Answer of the Judges of the Circuit Court of the United States of America, of the Ninth Judicial Circuit, in and for the Northern District of California.

The record and all proceedings of the plaint whereof mention is within made, with all things touching the same, we certify under the Seal of our said Court, to the United States Circuit Court of Appeals for the Ninth Circuit, within mentioned, at the day and place within contained, in a certain schedule to this writ annexed, as within we are commanded.

By the Court:—

L. S. B. SAWYER, *Clerk*

Citation.

UNITED STATES OF AMERICA, ss.

The President of the United States, to John W. Cassidy, Greeting:

You are hereby cited and admonished to be and appear at a United States Circuit Court of Appeals, for the Ninth Circuit, to be holden at the City of San Francisco, in the State of California, on the 16th day of February next, pursuant to a Writ of Error filed in the Clerk's Office of the Circuit Court of the United States for the North-

ern District of California, wherein Hunt Brothers Fruit Packing Company, is plaintiff in error, and you are defendant in error to show cause, if any there be, why the judgment rendered against the said plaintiff in error as in the said Writ of Error mentioned, should not be corrected, and why speedy justice should not be done to the parties in that behalf.

Witness, the Honorable Thomas P. Hawley, U. S. District Judge for the District of Nevada, assigned to hold and holding the United States Circuit Court for the Northern District of California, this 20th day of January, A. D. 1892.

THOMAS P. HAWLEY,
U. S. Judge.

Service of the within Citation and receipt of a copy thereof admitted this 20th day of January, 1892.

LANGHORNE & MILLER,
Attorneys for Defendant in Error and Plaintiff.

(Endorsed:) Filed, January 20, 1892. L. S. B. SAWYER.

Clerk U. S. Circuit Court, Northern District of California.

Order Extending Time to Docket Case and File Record.

In the United States Circuit Court of Appeals for the Ninth Circuit.

HUNT BROTHERS FRUIT PACKING COMPANY,	}
<i>Plaintiff in Error.</i>	
vs.	}
J. W. CASSIDY,	
<i>Defendant in Error.</i>	

Good cause therefor appearing, it is hereby ordered that the Hunt Brothers Fruit Packing Company, the plaintiff in error in the above entitled case, have an enlargement of the time, to and including the 16th day of March 1892, within which to docket said case and file the record thereof in the Clerk's Office of this Court.

THOMAS P. HAWLEY,
Acting U. S. Circuit Judge.

(Endorsed:) Filed Feb. 15, 1892.

F. D. MONCKTON,
Clerk.